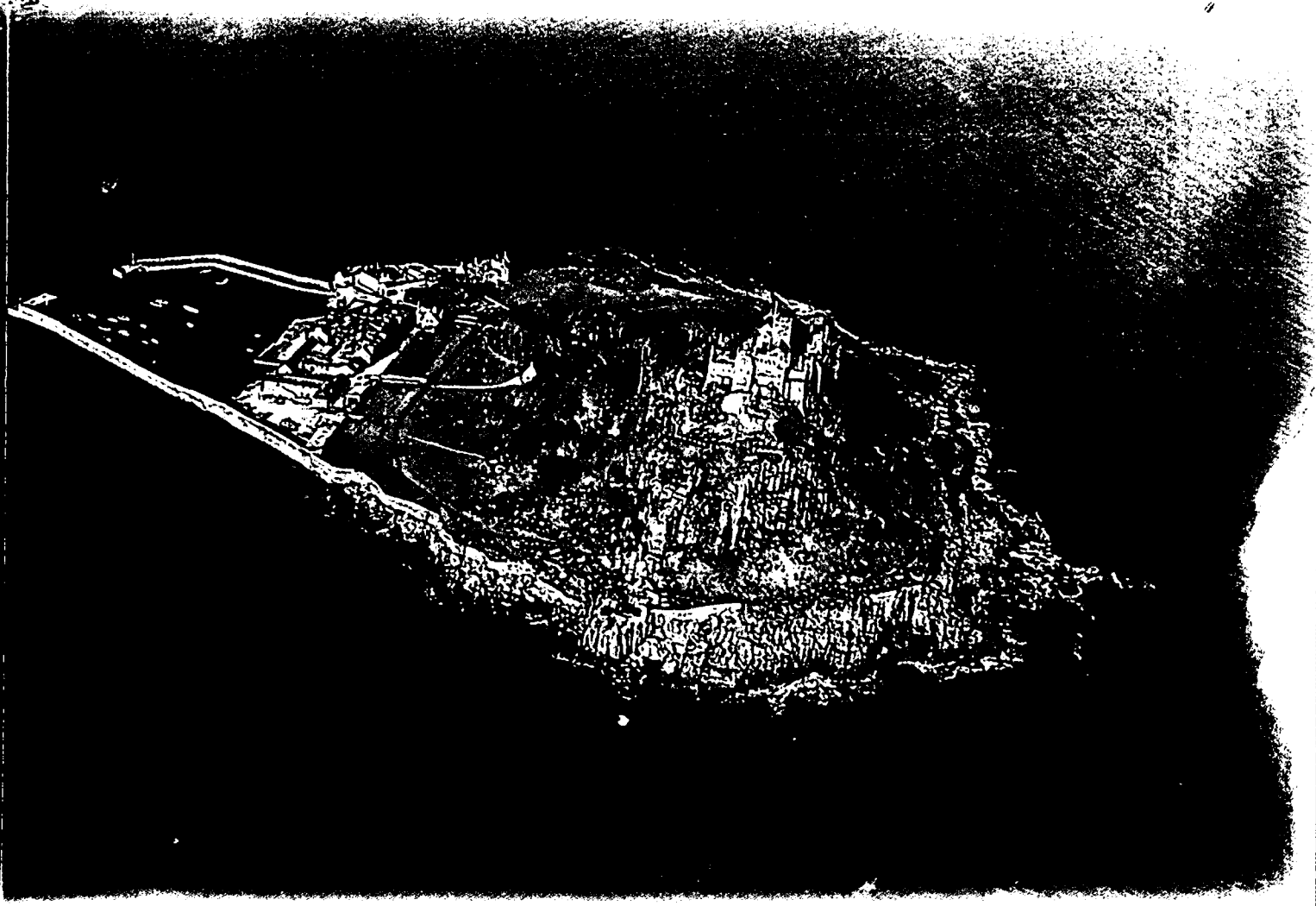
St Michael's Mount

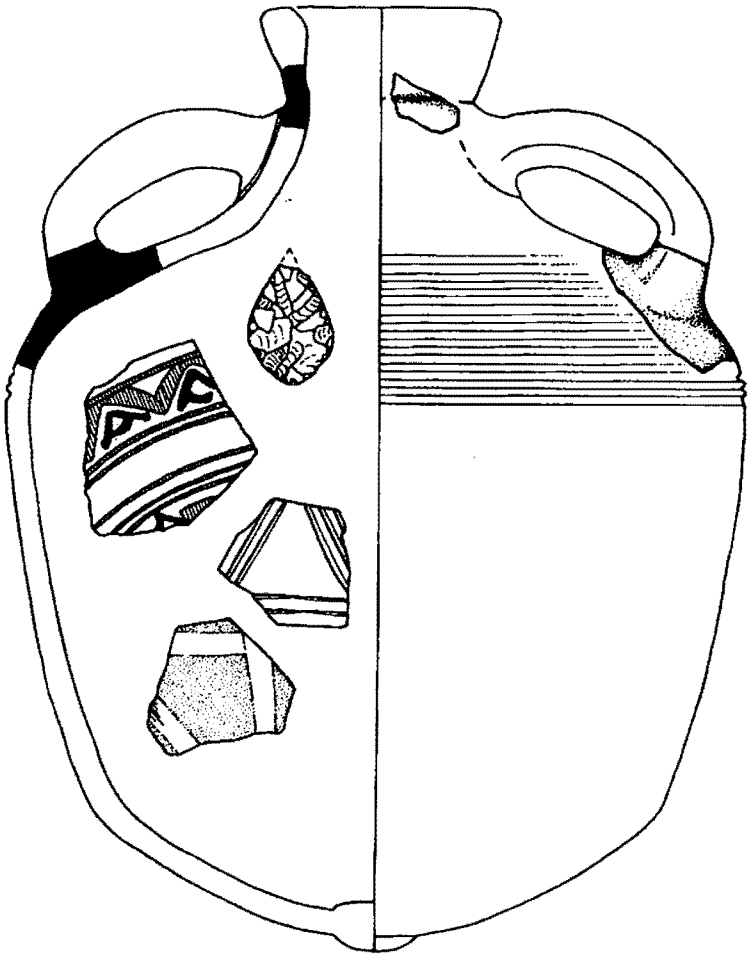


Archaeological Works, 1995-8

CORNWALL ARCHAEOLOGICAL UNIT

St Michael's Mount, Cornwall
Reports on archaeological works, 1995-1998

including watching briefs on a foul water sewer trench and a land drain, surveys at the summit and on the lower slopes, and archaeological trenching at the summit.



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with contributions from Carl Thorpe, Henrietta Quinnell, Ann Reynolds and John Allan

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Cover Illustrations:

Front; aerial view of the Mount from the west (Photo by Steve Hartgroves, CAU; Copyright reserved).

Back top: Adam Sharpe (CAU) cleaning section of the sewer trench in 1995; investigating a pit to north of the later medieval Christian grave.

Next: Dick Cole (CAU) excavating shallow curving trench in advance of cobbling at the summit in 1997.

Next: Roy Powell (St Michael's Mount Head Gardener) checking spoil heap near north end of sewer trench with a metal detector in 1995.

Bottom: Work in progress on the sewer trench in 1995.

Acknowledgements

The Cornwall Archaeological Unit is grateful for the funding and support given to the projects reported on here by The National Trust, Lord St Levan, and the European Regional Development Fund programme through Objective 5B.

Lord and Lady St Levan have been very supportive and encouraging during the fieldwork and report preparation stages. Lord St Levan has also, in correspondence with the principal author, helped clarify some aspects of the later medieval and post-medieval history both as a result of his own researches and through discussion with other authorities.

Richard Bellamy, the National Trust's agent on the Mount has eased the passage of the work, organised funding, and been supportive throughout. Dr David Thackray, Jeremy Pearson, Ross MacIntosh and Stuart Cooper, all of the National Trust, have provided help and advice, as has Richard Church of Bazeley, Miller-Williams and Corfield, the firm of architects retained by The National Trust and Lord St Levan.

Malcolm and Garry Early and the Godolphin Co. Ltd team were very accommodating during the trenching and the summit cobbling works. Simon Barnicoat very carefully saved artefacts unearthed during the cobbling. Roy Powell, the Mount gardener, used his metal detector on the spoil dumps to recover a number of important objects, including two early coins. Mr and Mrs David Hunt, and Mr and Mrs Darren Little, helped collect artefacts from spoilheaps alongside the trenches, and Mrs Hunt was the first to notice the remains of the 'banquetting house'. Fieldwork on the sewer trench was carried out by Peter Herring of CAU, with some weekend help from Jacky Nowakowski, Adam Sharpe and John Gould, and from César Parcero-Oubiña of Santiago de Compostela. The police team involved on the discovery of human bones were Acting Sergeant Ball, Sergeant Tonkin, PC James Ellis, and PC Andy Crawford; Dr Fernando was the Pathologist and Ken Wood the Coroner's officer.

Finds were cleaned, labelled and given an initial classification by Imogen Woods, to whom the Unit is very grateful. Carl Thorpe of CAU produced the catalogue of finds and the outline finds report, and drew selected artefacts. Henrietta Quinnell of Exeter University's Department of Continuing and Adult Education prepared the report on the prehistoric pottery, and John Allan of the Royal Albert Memorial Museum, Exeter, made detailed notes on the medieval and post-medieval material. Two medieval coins were x-rayed by Sarah Stanley of The Salisbury Conservation Centre, part of Wiltshire County Council, and inspected by Dr Barrie Cook Curator of Medieval and Early Modern Coinage at the British Museum. Simon Mays of English Heritage's Ancient Monuments Laboratory looked at the human bones from the later medieval grave and Dr Tony Thould looked at the human bones from a cut in the village and from layers on the eastern slopes. Dr Gordon Cook and Philip Naysmith of SURRC (Scottish Universities Research and Reactor Centre), produced radiocarbon dates for the former. Tony Ball of Camborne School of Mines subjected the copper ingot to various analyses.

Ken Isham provided documentary material relating to the 17th century limekiln and Alasdair Neill helped in a similar way with the 19th century copper ore hutches. Pamela Dodds kindly provided copies of transcriptions from the letterbooks of Dr William Borlase held in the Morrab Library in Penzance.

The archaeological surveying at the summit was carried out by Ann Reynolds and Peter

Herring and the pre-cobbling trenching by Ann Reynolds and Dick Cole. The probably prehistoric house platforms on the southern slopes were surveyed by Peter Herring and Victoria Furneaux. Malcolm Early, Roy Powell and Richard Bellamy gave valuable help during the recording of the land drain.

CONTENTS

LIST OF FIGURES

SUMMARY

An archaeological and historical evaluation of St Michael's Mount prepared for the National Trust and Lord St Levan in 1992 identified the need for further more detailed records of its buildings and archaeological remains. It also recommended that archaeologists 'be consulted over any proposed developments and be called in to undertake watching briefs should any ground be broken (cable or pipe laying, foundation trench excavation etc) or any structure altered' (Herring 1993a, 14). This was firstly to enable disturbance or damage to known remains to be either avoided or minimised and secondly to use the ground-breaking to provide opportunities to view any buried evidence of the history of St Michael's Mount. Buried features and any artefacts collected from stratified layers would be expected to throw light on the development of the Mount's internationally important historic landscape.

Three separate projects in the mid 1990s involved such ground-breaking and the results of the various watching briefs are brought together in this report. In addition, a number of measured surveys were prepared, either of features identified as a result of the trenching or of features affected by other works, including cobbling of footpaths to the west of the summit complex. The structures, features and artefacts discovered, recorded, and inspected by specialists have helped us better understand the prehistory and history of St Michael's Mount (see Chapter 8 for details and discussions).

There is now more concrete evidence for early and late prehistoric use of the Mount, the latter possibly supporting the Mount's identification as *Ictis*, the Iron-Age tin-trading station. Sherds of imported amphorae found at the summit and near the harbour suggest continued use as a harbour and perhaps also as a Tintagel-like 'citadel' into the early post-Roman period. Bones from two skeletons in Christian graves have provided early and later medieval radio-carbon dates (pre and post-Norman) and contribute to our understanding of the development of the Christian community on the island.

A large building cut through by the sewer trench on the eastern slopes may be the remains of a long-lost refectory used by pilgrims visiting the summit priory. Work near the village has fleshed out our knowledge of the development of the medieval and post-medieval settlement. Two ruined fish cellars were cut through as were numerous layers of dumping material; there is also evidence for the repositioning of streets and alleys in the early modern period. Victorian ornamental landscaping works on the eastern slopes were clearly visible in the sewer trench sections as cuts and dumps.

The various works reported on here confirm the need to undertake such watching briefs and analytical surveys during and in advance of any future ground-breaking work on the Mount.

1 BACKGROUND TO THE PROJECTS

In 1992 the Cornwall Archaeological Unit (CAU) prepared an archaeological and historical evaluation of St Michael's Mount for the National Trust and Lord St Levan (Herring 1992, and 1993a). It was noted then that very little archaeological work had previously been undertaken on the Mount: no excavations, no measured survey, and even no general descriptions since those prepared in the 18th century by the great Cornish antiquarian, Dr William Borlase. Consequently the report's recommendations drew attention to the need for up-to-date information on the archaeology and history of the Mount, then the National Trust's third most popular property (in terms of visitor numbers) in England, Wales and Northern Ireland, and a place whose principal attraction is its dramatic and romantic history.

As well as identifying the need for a programme of surveying to provide detailed records of the buildings and archaeological remains, and to inform reviews of the Mount's history, the report also recommended that archaeologists 'be consulted over any proposed developments and be called in to undertake watching briefs should any ground be broken (cable or pipe laying, foundation trench excavation etc) or any structure altered' (Herring 1993a, 14). This was to enable advice to be given to minimise disturbance or damage to known remains by re-routing pipelines etc, and then to use any necessary ground-breaking to provide opportunities to view the buried evidence of the history of St Michael's Mount. Any buried features recorded, and any artefacts collected from stratified layers, would be expected to add to our understanding of the development of the historic landscape.

As a consequence of this recommendation, in the spring of 1994, Richard Church of Bazeley, Miller-Williams and Corfield, the firm of architects retained by The National Trust and Lord St Levan, informed the Cornwall Archaeological Unit that he had been commissioned to design a new foul water sewer for St Michael's Mount. This would enable the Mount to be linked in to South West Water's re-organisation of west Cornwall's sewerage system, the 'Clean Sweep' project, designed to rid Mount's Bay of sewage outfalls. In consultation with CAU, Mr Church designed a pipeline route running along the eastern slopes, from the southern garden terraces to the northern harbour village, that carefully avoided all then known archaeological sites.

Work on the trench began a little over a year later, in May 1995, and Peter Herring of CAU, maintained a watching brief on virtually the whole length of the trench, preparing section drawings of most of it, collecting artefacts for analysis from both stratified layers and from the spoil heaps alongside the trench, and taking photographs of selected features. The National Trust and Lord St Levan funded this work.

The finds made during the watching brief were rich, and included archaeological features, structures and artefacts. A Neolithic leaf-shaped arrowhead found in the trench pushed back occupation or use of the Mount to several millennia earlier than previously known. Just as exciting was the discovery of quantities of later prehistoric pottery in and around previously unrecognised, roughly circular house platforms behind defensive lines identified in the 1992 archaeological survey (Herring 1993a, 97-98). This could well provide valuable supporting evidence for St Michael's Mount being a Later Iron Age tin-trading settlement, or port-of-trade, perhaps even the trading island *Ictis* described in the early 1st century AD by Diodorus Siculus (drawing on 3rd and 1st century BC sources).

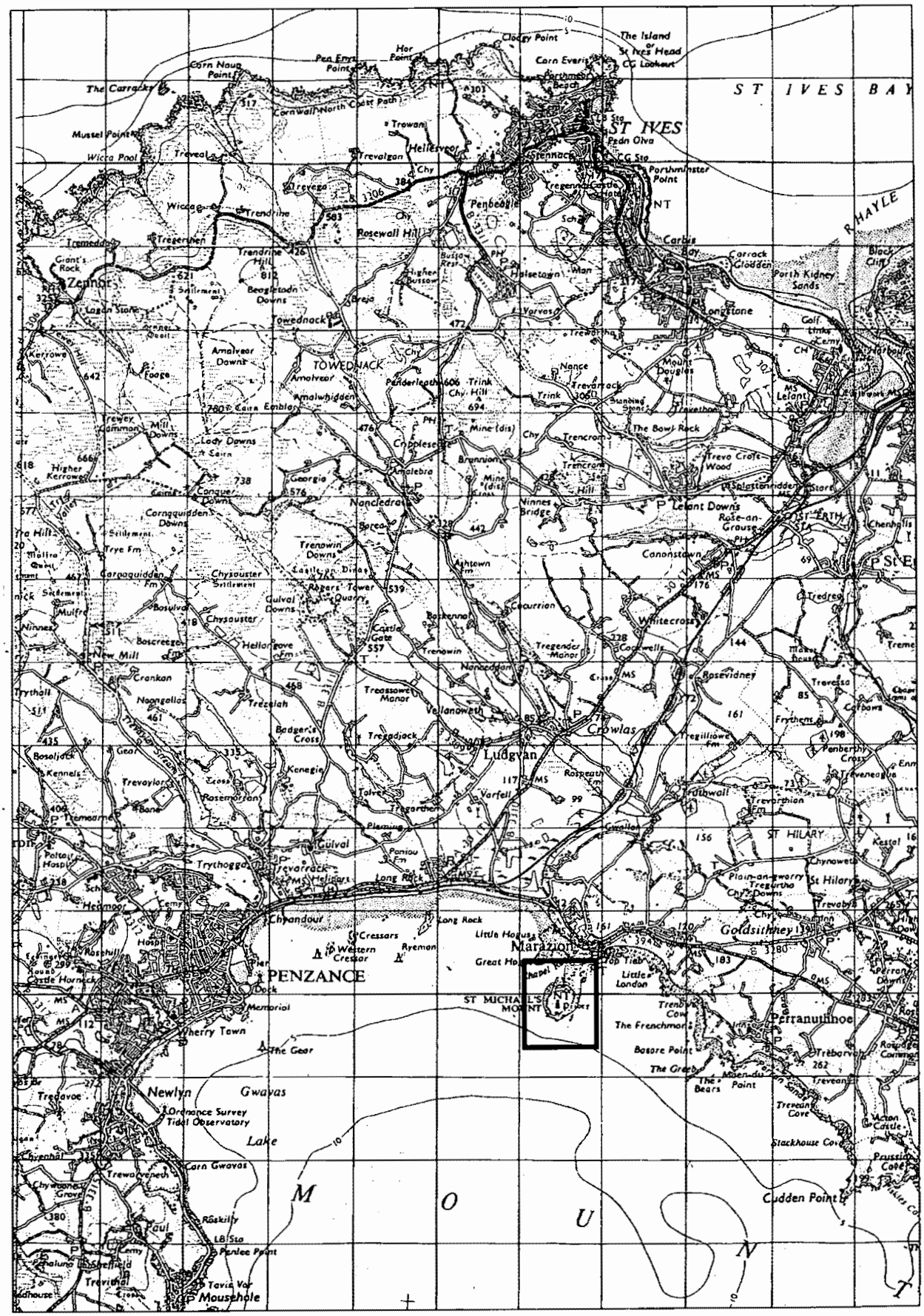


Fig 1 Location of St Michael's Mount in west Cornwall. North to top; kilometre grid.

Grass-marked pottery of the 10th to 12th centuries AD was also found and should indicate occupation of the Mount before the priory was established in 1135. Fragmentary bones of two mature adult humans, both given Christian burials, one in the village area and the other on the eastern slopes, provided radiocarbon dates whose ranges are centred in the 10th and 14th centuries respectively, the former being exceptionally important for our developing understanding of the pre-priory Christian settlement of the Mount. Later medieval finds included a silver Flemish coin and some pottery. A large building cut by the trench on the mid-slopes may be the structure shown on early engravings of the Mount, sometimes interpreted as a banquetting hall for later medieval pilgrims (see Herring 1993a, 75-76).

Evidence of extensive 19th century landscaping on the north-eastern slopes through the spreading of middens and harbour sand was found. In the area of the harbour village the archaeological remains were essentially urban, with complex stratigraphies of overlapping layers including several neatly cobbled floors of fish cellars. Again rich artefactual evidence was recovered.

Analysis of the artefacts and other materials collected during the watching brief, the archiving of field drawings and photographs, and the preparation of this report were supported partly by the European Regional Development Fund (through Objective 5B for improved interpretation for visitors to the Mount), and partly by The National Trust and Lord St Levan.

The probable prehistoric house platforms to the west of the defensive line running down the ridge known as Mackerel Bank identified during the course of the trenching were surveyed by Peter Herring and Victoria Furneaux in 1998 (see 3.1, below). The later medieval building and a wall identified in the sewer trench were also surveyed (3.2 and 3.3).

As well as reporting on the sewer watching brief, this report also covers further archaeological recording undertaken at the summit of the Mount in the spring of 1997 and immediately south of the village in the autumn of 1998, again supported by the European Regional Development Fund, through Objective 5B, and by The National Trust and Lord St Levan (see Fig 2). The 1997 work preceded the rationalisation of pathways on the high western slopes, between the Civil War gateway and the western doorway into the summit castle. Loose gravel on very uneven rocky terrain had contributed to several slips suffered by visitors, and a network of cobbled and paved paths was to be installed to signal preferred, safer routes. As there were known to be sensitive archaeological remains in this area (identified in Herring 1993a), CAU was commissioned to prepare a detailed survey to inform decisions on routes, so that important remains were not damaged and so that routes could be as historically appropriate as possible, for instance following the medieval pedestrian way within the now very slight remains of the medieval castle's curtain wall (see Section 4, below).

In addition to the measured survey carried out by Peter Herring and Ann Reynolds, two small trenches were excavated to the west of the summit, by Ann Reynolds and Dick Cole, in particularly sensitive areas in advance of laying cobbles and paving stones (see Section 5, below). Although no remains of structures were found, the artefacts collected from the loose soil which had accumulated behind rocks and walls were very important, including late prehistoric and Roman period pottery, and early post-Roman amphorae sherds, all of which had probably found their way here from complexes located a short distance to the east, at the Mount's summit.

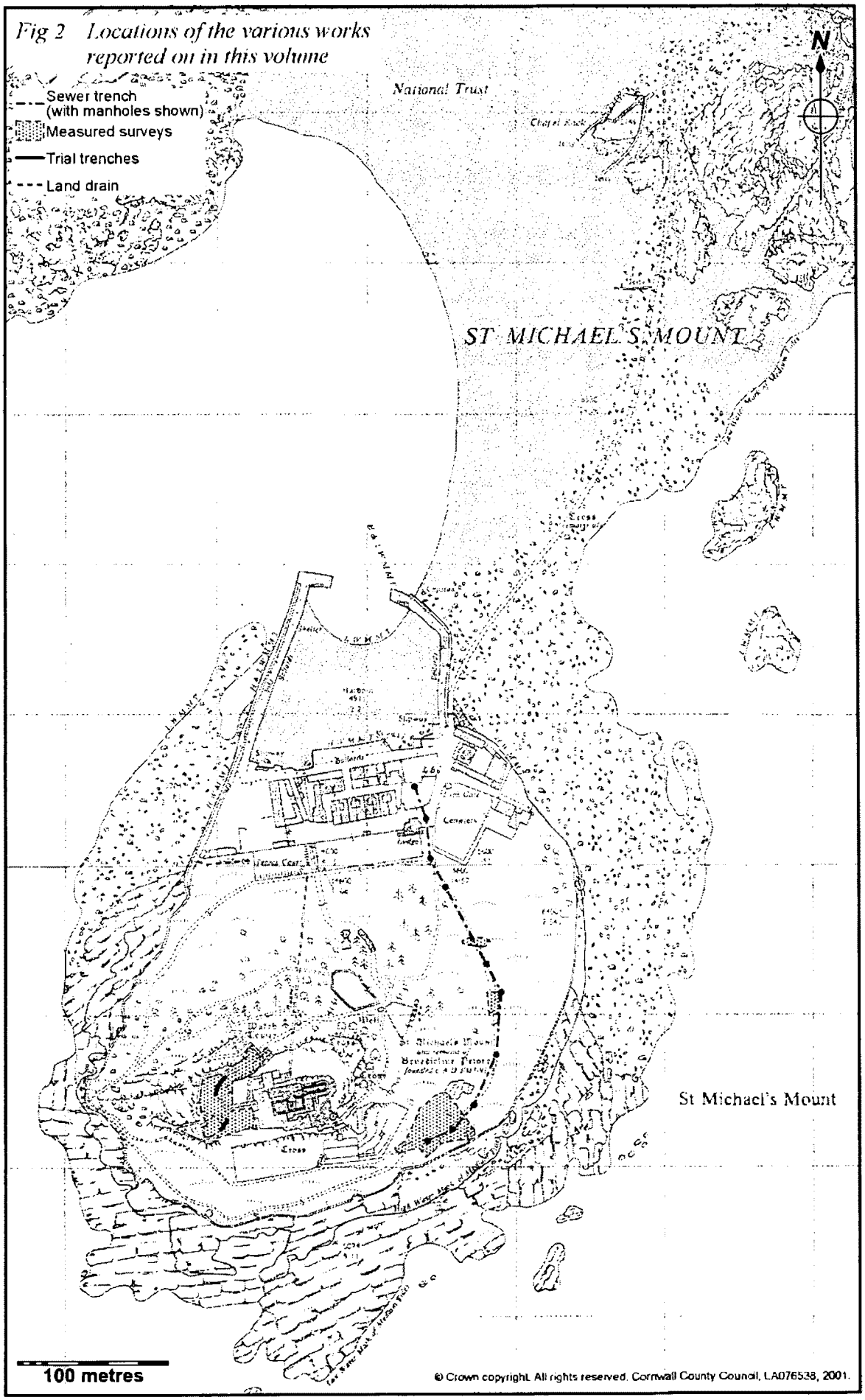


Fig 2 Locations of the various works reported on in this volume

Two more 5th or 6th century amphorae sherds were collected from the spoil of a land drain trench cut in 1998 behind the refurbished boat house at the west end of the village. They suggest that there had been a post-Roman harbourside settlement. A rimsherd of 'Sandy Lane' style grass-marked pottery from later in the early medieval period was also found in the land drain trench. This trench was cut through 19th century dumps from the village area which had been heaped over the remains of earlier 19th century hutches used by Welsh copper smelters for storing ore shipped out from the Mount's harbour.

The opportunity to describe and comment on artefacts recovered from elsewhere on and around the Mount and Chapel Rock (the greenstone semi-island at the Marazion end of the causeway) has also been taken (section 7). A watching brief on a shorter pipeline through the eastern part of the village, undertaken in 1996 by Carl Thorpe, has been reported on separately (Thorpe 1997) and is summarised here (7.7).

The results of the various works are considered in relation to our previous understanding of the history of the Mount in section 8. Several recommendations for practical conservation works and for further archaeological recording and historical research are made and justified in the concluding section (9).

Summaries of archaeological contexts and finds are found in several appendices, as are specialists' reports.

Fig 3 Aerial view of St Michael's Mount from the south. The 1995 sewer trench followed the mown path from the lower right hand corner of the walled gardens around the shaded base of the Mount and into the harbour village to the right of the lodge (CAU, F40/85, May 1993).

2 THE 1995 SEWER WATCHING BRIEF

2.1 Procedures and methods

The Cornwall Archaeological Unit worked closely with the Godolphin Co Ltd (the contractors carrying out the trenching and pipe-laying), fitting archaeological recording around the needs of the contractors. Richard Bellamy, then the National Trust's agent on the Mount, and Richard Church, the architect, introduced the need for archaeological recording to the contractors and provided valuable assistance. Where sensitive or complex remains were encountered, the contractors, under their foreman Malcolm Early, flexibly redesigned their days' work to allow adequate archaeological records to be made.

Engineering logistics prevented detailed examination of its sides in two short stretches of the trench: immediately north of the eastern pillbox (see Herring 1993a, site 91571) and immediately north of the gatehouse (site 91613). The former stretch was in the vicinity of the later prehistoric defences along the back of the south end of Mackerel Bank, a rocky ridge cutting off the south part of the island (site 91546). Spoil dumps alongside the trench yielded significant quantities of later prehistoric pottery; it seems likely that important prehistoric layers were cut through here, and any future groundbreaking in this area ought to be closely monitored. The gatehouse area will have included the transition from the complex deposits of the village to the relatively open and landscaped ground to the south-east.

Elsewhere, the trenches, which were typically 1.0m wide except where they were expanded to *c*4.0m at manhole points, were closely inspected, the sections cleaned by trowelling, and where appropriate they were drawn (mainly at 1:20) using vertical offsets from level straight lines. All distinguishable contexts were briefly described on CAU contexts sheets, summarised in Appendix 1. The rescue nature of the work made description of soil colours, texture and consistency more rapid and impressionistic than on normal archaeological excavations. Two sites were examined a little more closely, by Jacky Nowakowski, Adam Sharpe and John Gould of CAU, and included cutting back the section a little further than needed for the pipeline: these were the southern human burial [context 338] and a possible prehistoric pit [context 339] adjacent to the findspot of the Neolithic flint arrowhead.

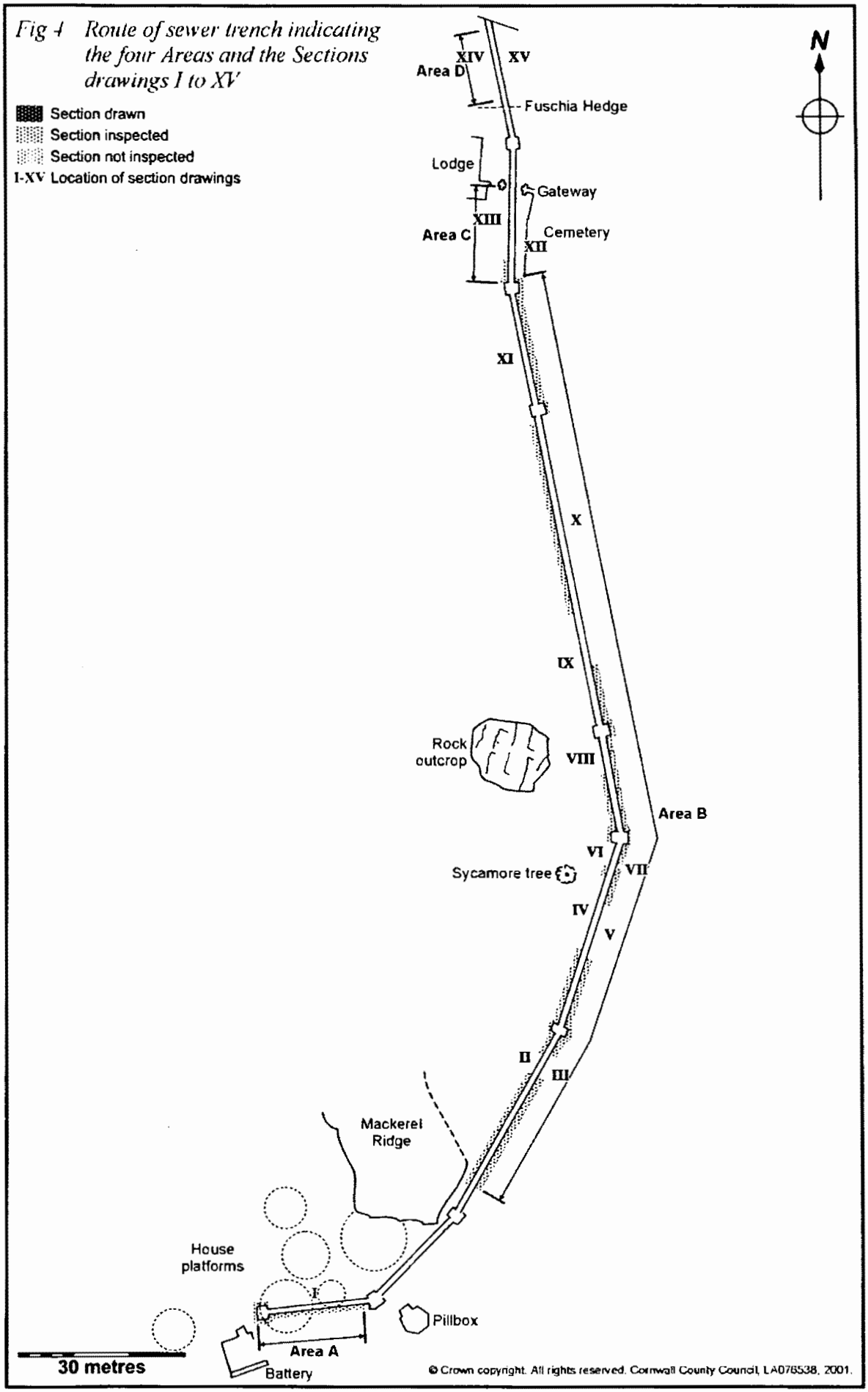
Recording of the trench was separated into four main areas (Fig 4):

A	West of the eastern pillbox
B	East and north of the pillbox
C	South of the gatehouse
D	In the village

Slight earthworks of a building and a collapsed wall, identified after locating well-preserved remains in the trench, were planned by offsets from straight lines. The subcircular scoops or house platforms within the prehistoric defences, apparently associated with later prehistoric artefacts, were also later planned (see section 3.1).

Artefacts securely in contexts were collected and bagged accordingly, and artefacts visible in the spoil heaps alongside the trench, were also collected, their general position alongside the trench being recorded. Permission for the use of a metal detector on these spoil heaps was given by The National Trust, on the advice of CAU, to the Mount's Head Gardener, Roy Powell, and he located several significant metal artefacts, including a medieval Flemish coin and a Nuremberg jetton. Special permission is required to use a metal detector on National Trust property; digging as a result of using a metal detector contravenes the Trust's byelaws.

Fig 4 Route of sewer trench indicating the four Areas and the Sections drawings I to XV



All artefacts were cleaned and labelled in the offices of CAU by Imogen Woods who also prepared an initial catalogue of finds. They were then inspected and more closely catalogued by Carl Thorpe of CAU (see Appendix 2).

Prehistoric pottery was subjected to specialist examination by Henrietta Quinnell, of Exeter University, who is developing a detailed review of prehistoric pottery from south-west England. Carl Thorpe (CAU) and John Allan of the Royal Albert Memorial Museum, Exeter, examined medieval and post-medieval artefacts. The medieval coin and jetton were sent for x-ray to the Salisbury Conservation Centre in Wiltshire, and were also examined by Carl Thorpe (CAU), Roger Penhallurick of The Royal Cornwall Museum, and Dr Barrie Cook of the Department of Coins and Metals of the British Museum. Roger Penhallurick and Anna Tyacke of The Royal Cornwall Museum also inspected a small lead fishing weight. Dr Tony Thould (late of Treliske Hospital, Truro) and Simon Mays (English Heritage Ancient Monuments Laboratory) examined the human bones. Those from the two securely medieval graves were sent to Dr Gordon Cook and Philip Naysmith of Scottish Universities Research and Reactor Centre (SURRC) for radio-carbon dating. Tony Ball of the Camborne School of Mines investigated the chemical content of a small copper ingot found among the prehistoric layers. Steve Hartgroves and Anna Lawson-Jones of CAU examined the flints.

2.2 Descriptions of areas

This section summarises the stratigraphy in the four main areas, describes significant features and structures, and marries them with analyses of artefacts to create localised histories. Context numbers are in square brackets (for which see Appendix 1) and relevant Section drawings (I – XV; located before Appendix 1) are identified.

2.2.1 Area A West of the pillbox (Section I)

The north side of an 18.5m length of the trench was examined, running between the two most westerly manholes (numbered 8 and 9; section I). This was a short way to the north of an 18th century cliff-edge gun platform (Herring 1993a, site 91568), on a line, which passed to the north of the eastern pillbox (site 91571). This stretch of trench was the last to be inspected and for logistical reasons had to be recorded relatively rapidly.

House platform [335]

The relatively simple layers recorded in Area A included, beneath the topsoil [233], a medium brown loam [235] which was the fill of a cut [335] roughly levelled or platformed into the slope. A wall of large granite stones [236], 1.0m wide, built towards the eastern edge of this cut, may be interpreted as the wall of a prehistoric round house erected on the sub-circular platform (visible as an earthwork). The stony bank [237] recorded in the section *c*1.0m west of the cut was perhaps the footings of its western wall. The loam contains some flecks of charcoal and, at its base, near the centre of the suggested round house, a granite saddle quern was found. No post-prehistoric artefacts were found, but ten prehistoric pottery sherds of the Late Bronze Age / Early Iron Age period (see Henrietta Quinnell's report, 2.3.3) and a small part of a copper ingot (see 2.3.4) were retrieved, as were three waste flint flakes, again probably prehistoric, but also probably residual. The indications are, therefore, that this was an undisturbed prehistoric layer. It is possible that the recording of the medium brown loam was undertaken too rapidly to recognise any distinguishable 'occupation' layers but it should also be noted that the identification of occupation layers in prehistoric houses on granite soils in Cornwall is often problematic (see, for example, Mercer 1970).

Once the platform containing prehistoric material had been identified, a number of other sub-

circular platforms were noted on the slopes uphill to the north, all within the possibly prehistoric defensive lines (Herring 1993a, site 91546) running down the back of Mackerel Bank, the naturally outcropping ridge of metamorphic rock. It seems possible that there was a small Late Bronze Age / Early Iron Age settlement here, protected by the defences of a cliff castle (see 8.3). The eastern end of the trench in Area A could not be examined closely but the spoil alongside [227] yielded large numbers of contemporary sherds. It seems possible that these came from a midden associated with the settlement, tucked in behind the defensive lines.

2.2.2 Area B East and north of the pillbox (Sections II – XI)

A long curving length of trench, punctuated by five manholes (nos. 3-7), ran along the lower eastern slopes of the Mount, from the pillbox to just south of the graveyard, and following the line of the footpath now adorned by avenues of red-hot pokers. Prior to trenching, the line, which forms the western edge of the largest area of reasonably deep soil on the island, was regarded as featureless except for slight earthworks at the northern end where the line entered the village area. As in Area A, the trench revealed one or two features which once understood could then be extrapolated to the surface, where slight earthworks were recognised, and planned.

Introduction to the main features of Area B, working north

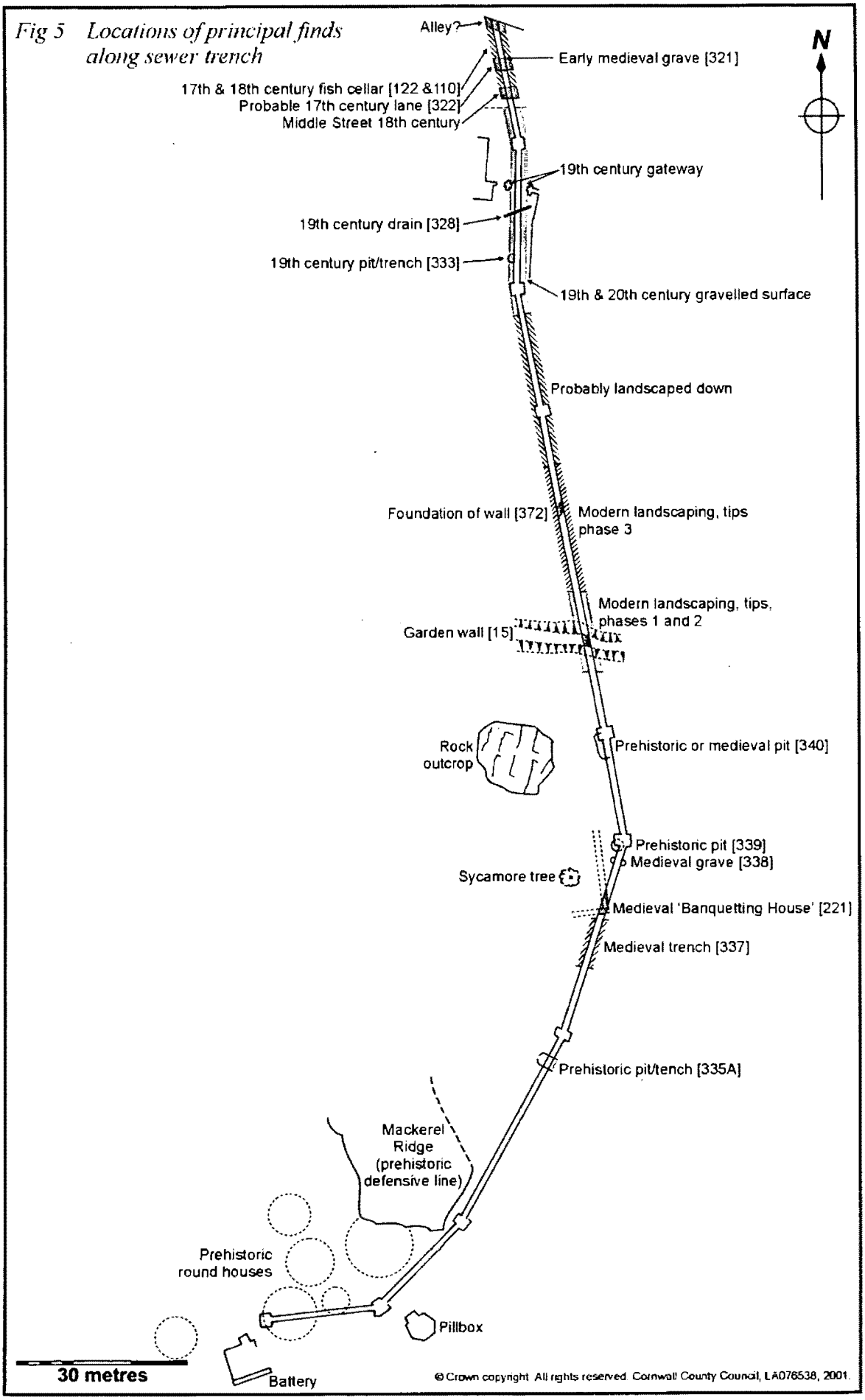
The southern quarter of Area B was fairly simple, with cultivated topsoil [1] lying directly above the natural granitic subsoil, or rab, for the first 50m. Within the spoil from this stretch [229] was found a broken late 14th or 15th century decorated jug apparently either lost or dropped whole. A small, possibly prehistoric irregular cut or pit [335] was recorded on both sides of the trench at 51.5m north of the pillbox's north-east corner (the fixed point from which all distance positions in Area B were measured).

After another clear 20m of topsoil [1] on rab, a long deep pit or trench [337] was encountered which contained medieval and early post-medieval artefacts [217 and 218] as well as a dense layer of charcoal and burnt soil [219]. This feature was probably associated with the remains of a ruined building [221], immediately to its north, the width of whose stone wall (0.9m) suggests a late medieval date. Roofing slates and chunks of lime plaster were found in demolition layers [222] adjacent to this building.

Just 5m further north (at 91.5m), the trench cut through a Christian grave [338] leaving the top of a skull and parts of two femurs. This grave was sealed by a layer [212] with many early and late medieval pot sherds which a short distance further north also covered the fill of a shallow depression or pit [339] containing a Neolithic leaf-shaped flint arrowhead. Fifteen metres on, a flat-bottomed pit [340] with prehistoric and early medieval artefacts was cut by the trench. This possibly fairly early pit appears to overlie a layer [8] containing a prehistoric waste flint and two greenstone objects (not artefacts), which may have been associated with a settlement of some kind.

Northwards from 120m, the trench is largely characterised by dumping layers and pits, mostly of 19th century date and associated with extensive landscaping works. These included deliberately stripping off the topsoil (and thus most archaeological layers and features) before dumping soils, building debris and sands from the village and harbour area, and perhaps also the late 19th century terraced gardens uphill from the village (site 91633) to create an even surface on which topsoil (presumably that stripped off at the beginning of the process) was

Fig 5 Locations of principal finds along sewer trench



eventually spread to support a lawn. A small number of more substantial features survived this process. At 132m north of the pillbox there is a well-built hedge or wall [15] of probably post-medieval date, and at 167m a 2m wide trench [372] filled with large stones, possibly the foundation for another wall. Another stone-filled pit or trench [381] at 189m, close to the entrance to the village, contained only prehistoric and early medieval artefacts and may be relatively early. Almost immediately to its north the section was dominated by the thin layers of a succession of road surfaces more fully recorded in Area C.

The following description of principal features is arranged according to the relative chronology. Analysis of the stratigraphies recorded in the trench sections was aided by drafting Harris Matrices, diagrams setting out chronological relationships between all layers and features in a trench. Some features are, of course, not physically related and their sequence is therefore assumed.

Altered rab

In the northern quarter of Area B there are several stretches of altered rab [58, 68, 77, 81], usually above an iron-pan (Sections X and XI). One [68] contains a few flecks of charcoal, but all have irregular shapes and are perhaps more likely to be natural than artificial, the charcoal moved in to the rab by animals.

Possibly early prehistoric shallow pit [339]

Sealed by a layer containing medieval artefacts [212] is a shallow rab-cut pit [339] at 94m whose fill, of fairly clean re-deposited rab above an iron-pan, yielded only one artefact, a fine leaf-shaped flint arrowhead of distinctively Neolithic date. The pit's sides are very gently sloping, at *c*20°, and the feature, 0.24m deep, and at least 1.5m across, may be more accurately termed a scoop (Section VI). It is not possible to suggest whether this is a domestic or ritual pit. Immediately uphill is the lowest significant outcrop of granite on the Mount's eastern slopes and the activities that have left us the pit may have been related to this prominent natural feature.

Possibly prehistoric pit/trench [335A]

At 52m, just beyond the rocky foothills of Mackerel Bank, the sewer trench cut through an irregular rab-cut pit or trench [335A], neatly flat-bottomed with 45° sloping sides in the western section, but much more uneven in the eastern (Sections II and III). It is 0.65m deep and 2.4m wide in the trench section and the upper of two fills [225] contained a Late Bronze Age / Early Iron Age pot sherd (P2 in 2.3.3, below) and a prehistoric flint.

Possibly prehistoric pit [345]

A round-bottomed rab-cut pit [345], 0.2m deep and 0.9m wide in section, with gently sloping sides (30°), underlies a post-medieval wall [15] at 132m, and is only visible in the western section (IX). Its fill [17], a dark brown silty loam with few stones contained only one artefact, a Late Bronze Age / Early Iron Age pot sherd.

Possibly prehistoric layer [8]

A fairly even layer [8], 6.5m long in section (from 114 to 120.5m), of compact brown silty loam, lying on the rab, contains flecks of charcoal and only prehistoric flint and greenstone fragments, and is cut by a probably medieval pit [340] to its south (Section VIII). In one place there is a large area of burning [9, 336] immediately above the layer; this is visible in both

Fig 6 Distribution of prehistoric artefacts along the sewer trench

Stone (all flint except granite saddle quern and greenstone axe) and metal shown to left of trench, pottery to right.

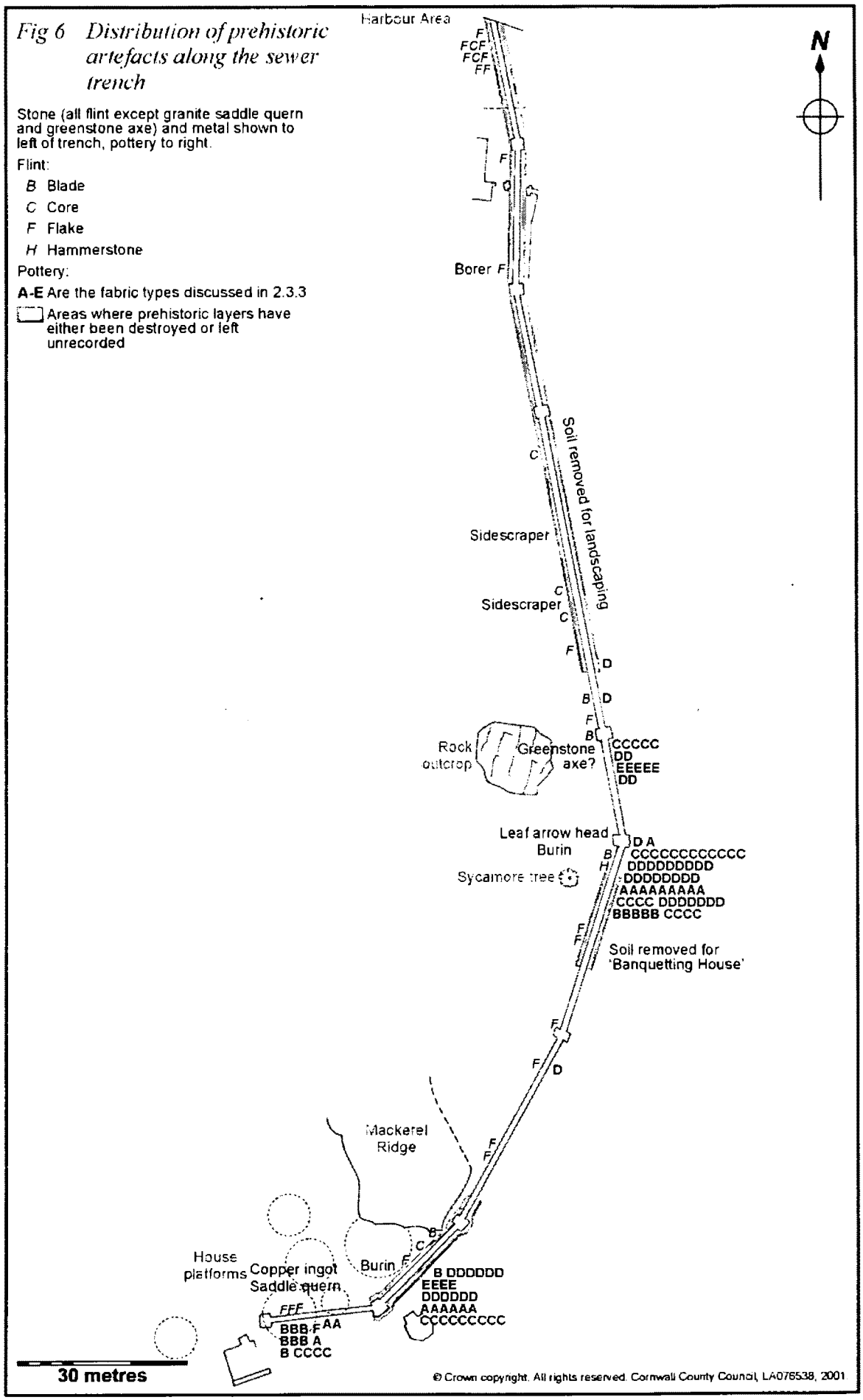
Flint:

B Blade
C Core
F Flake
H Hammerstone

Pottery:

A-E Are the fabric types discussed in 2.3.3

Areas where prehistoric layers have either been destroyed or left unrecorded



sides of the trench, which was 3.5m wide here (to contain a manhole).

Prehistoric artefacts

In addition to the prehistoric artefacts recovered from the features noted above, more were collected from later contexts, in which they were therefore residual, and from the spoil heaped alongside the trench. By recording the positions of finds along the trench, it was possible to gather useful information regarding the general scatter of prehistoric artefacts on the eastern slopes of the Mount (see Fig 6).

In brief, the later prehistoric pottery (mainly Later Bronze Age and Early Iron Age) was largely confined to the stretch of trench between 91.5 and 132.5m north of the eastern pillbox, and while earlier prehistoric flint, chert and greenstone objects were more widely spread, these too tended to cluster in the same 40m long stretch, immediately south of the now-removed garden's southern wall (site 91595). It is quite likely that these distributions continued further to the north towards the natural harbour but were truncated, diminished and confused by the 19th century landscaping works which were also most intensive north of this garden wall. It must be predicted, therefore, that the landscaping probably removed most features to the south-east of the harbour and village area associated with early and later prehistoric use of the Mount. We will see in Areas C and D that further works in the vicinity of the Victorian gateway and the medieval and post-medieval fishing village will also have reduced the likelihood of early remains surviving there.

To the south of 91.5m from the pillbox the thinning out of prehistoric artefacts is more likely to be real as there has been much less later disturbance here. The early prehistoric flint and stone finds, if associated with the use of the Mount as a locally significant rocky, dramatic place (see Herring 1993a, site 91500), may be seen to be related to the large outcrop of rock immediately uphill from the shallow pit which contained the Neolithic arrowhead (above). The later prehistoric pottery, on the other hand, if associated with the use of the Mount as a port (*ibid*, site 91503), may have been expected to become more densely concentrated further north, as the natural harbour was approached. It should be noted that present evidence suggests that the area of Mount's Bay will not have been inundated in the Neolithic period (see Herring 1993a, 60) so the present harbour area may then have had less significance.

Early medieval artefacts

No securely early medieval structure or feature was recognised in the trench in Area B but the former existence of a focus of activity at around 90m was strongly suggested by a fairly dense cluster of early medieval pot sherds. Nineteen sherds of Gabbroic / Gabbroic admixture fabrics were found within a stretch of the trench just 3.5m long, in contexts [212] and [215], the latter the fill of a later medieval grave. Only one other early medieval sherd was found in the trench, 15m further north in the fill of a large pit [4].

Later medieval Christian burial [338]

The trench sliced through a grave [338] at 91.5m (Sections VI and VII). Only the top part of the skull and the tops of both femurs survived (Figs 7 and 8) - the central part of the skeleton was lost to the JCB, and the lower parts of the legs were cut by a later pit [230]. The grave, 0.36m wide, is round-bottomed with steeply sloping sides (*c*80°), and is just 0.25m deep below the layer overlying it [212], and its bottom is only 0.8m below the present ground level. This may, however, be deceptive as it seems that cultivation later took place here, reducing soil depth as a negative lynchet developed. Orientated east-west, with the head to

Fig 7 Christian burial [338] from east showing cast left by top of skull (200mm long scale)

Fig 8 Christian burial [338] showing femurs to right of longer (0.5m) scale and later pit beyond

the west, the burial appears to be Christian. Analysis of the bones suggests the person was a middle-aged adult, but not enough survived to determine its sex (see Appendix 3). Radiocarbon dating was undertaken on the bones, and generated a date of AD 1277-1389 at one sigma of confidence or within one standard deviation, and AD 1260-1410 at two sigma or two standard deviation (see Appendix 3). Although an early 14th century death and burial therefore seems most likely, the date ranges raise the possibility that the person may have been a victim of the Black Death (1348-9). The body appears to have not been buried in a coffin as its skull was against one side of the narrow grave cut.

The discovery of other probable human bones in dump layers *c*35m further north from the grave, and the pit which cuts through the east part of the grave itself, may suggest that the grave was part of a more extensive cemetery. 'Human bones and skulls have frequently been found in places [on St Michael's Mount] where the soil was sufficiently deep for interment' (Thomas 1831, 20). Possibly significant in terms of the dated bones is the confirmation in the endowment to the vicar of St Hilary in 1313 of permission for the dead of Marazion to be buried in that church rather than on the Mount, 'from the danger of passing with them to the Mount' (Hitchins and Drew 1824, 331). This may suggest that the body is of a resident of Marazion buried before 1313, but caution is suggested as an 18th century traveller noted that 'the people of Market Jew [Marazion] have a burial place at the foot of the hill' and records confirm that paupers and children from Marazion were still buried here in the late 18th century (Mason 1990, 9). These later burials were, however, probably within the walled cemetery (site 91611) in the east part of the village that was in use by 1618 (Herring 1993a, 146).

Medieval soil [212]

Overlying the burial (above) was a sandy silty loam [212] of even depth and containing small stones, charcoal flecks and numerous sherds of early and late medieval pottery but no post-medieval artefacts (Section VI). It has the character of a garden or field soil but its full extent could not be determined because of later features cutting it to north and south.

Possibly medieval pit/trench [340]

At 110m is a large flat-bottomed pit or trench [340], containing three more or less stony layers [4, 5, and 6] containing prehistoric and early medieval artefacts but no post-medieval finds. It may, therefore, have been a medieval feature. In the trench section it is 0.5m deep below the layers that seal it, and 4.1m long, with fairly irregular sides (Section VIII). No obvious interpretation can be offered.

Possibly medieval pit [381]

Towards the northern end of Area B, at 189m (Section XI), is a broad shallow pit [381], 3.1m wide and 0.34m deep in section, with a steeper southern side (*c*40°) than the gentle north side (*c*25°). The fill [82] is very stony (up to 70% stone) but the brown loam matrix also contained two Cornish Medieval Coarseware sherds of 13th to 15th century date. A late medieval date for the pit is thus possible. It lies immediately south-west of the present graveyard (site 91611), close to the entry through the old village perimeter, and close to another pit (below).

Possibly medieval layer or pit [84]

A shallow layer [84] of brown loam with many small and medium stones (forming *c*50% of the fill) lies a short distance further north of the pit, at 194m (Section XI). The two features

may be related. No datable artefacts were collected from this pit and rather than being medieval it may instead be more like the 19th century pit [333] just to its north (see below, Area C).

Late medieval building [221]

One of the most significant discoveries made in the sewer trench was this substantial building [221] at 81-85m (Section IV). Its construction, and the artefacts found in apparently associated features, suggest a late medieval date. Once recognised, the building could also be seen as slight earthworks on the slope above and when planned (see 3.2), these indicate that the building was at least 14m (46 feet) long, from north to south, and at least 5m (16 feet 5 inches) wide externally. It was platformed into the slope on a slight rise a short distance to the south of the prominent outcrop.

The building is almost certainly that portrayed on these lower eastern slopes on early drawings of the Mount, shown roofed (with blue roofing slate?) on the *c*1515 drawing, but unroofed on the *c*1595 drawing by John Norden, and the Buck brothers' engravings of 1734 (all three included in St Aubyn 1978). Lord St Levan (*ibid*) associated the building shown in these representations with that recorded by Hitchins and Drew in 1824, which stood near the village 'within the recollection of the last generation, a building that belonged to the priory, which was forty-five feet in length, and was called the banquetting house' (Hitchins and Drew 1824, 326). The close matching of the remembered length and that measured on the ground seems to clinch both this association and the recognition of the building revealed in the trench as being that drawn by Norden *et al.* (NB Another site, further to the north-east had been tentatively identified in the 1992 survey as that of Norden's building; see Herring 1993a, site 91522. That identification can now be shown to be incorrect.)

Fig 9 Part of the surviving walling of the later medieval building [221]. Right hand scale (200mm) is resting on a fragment of reused mueller stone

The walling of the building found in the trench is 0.96m wide with two well-built faces of large granite stones, not dressed but roughly rectangular, and with smaller stones and broken roofing slates infilling and trigging; mortar was rab-based (see Fig 9). Two parts of a broken mueller stone (possibly prehistoric) were included in the walling (these were not collected but left *in situ*). It is possible that what survives are foundations, and that the main walling was better built, but it is more likely, given the height that the walling reaches (0.6m in places), the depth of demolition rubble to the east (which indicates that the recorded walling stood above ground level), and comparison with medieval walling in buildings in the castle and priory at the summit of the Mount, that the trench cut through the lower courses of the original walling.

No doorway existed in the south-east corner of the building, the southern 4.5m of whose long eastern side was visible in the trench. This fits well with the *c*1515 drawing which shows two windows high in this wall and a door in the north gable, the nearest wall to the track from causeway to priory. Both this early artist and Norden show the building with either one and a half or two storeys, as do the Buck brothers. If, as seems likely, the roof was removed around the time of the Reformation in the mid-16th century, then the building had been decaying for nearly two centuries before the Bucks drew it, and the six large ground floor openings shown in their engraving may have been somewhat fanciful. Final demolition probably took place shortly after 1734, if Hitchins and Drew are accurate in their account. It seems to have been removed by 1769, as the antiquarian Dr William Borlase does not show the building in his engraving of that year.

Demolition layers to the east of the building include stones, roofing slates and large chunks of plaster.

Immediately to the south of the building is a substantial pit or trench [337], cut into the rab to a depth of *c*0.6m (Sections IV and V). It is apparently contemporary with the building which was built on its floor, but is more than just a foundation trench as it extends for another 7.5m to the south, and contains at its northern, building, end a 1.8m long spread of charcoal and burnt soil [219] which can only have been produced by burning on site. Fill of the trench immediately above this [218] is very compact and contains only later medieval pottery artefacts. This is in turn overlain with a compact brown soil containing mainly later medieval artefacts, but also a sherd of a possibly 17th century Bellarmine jug. The lack of debris from the demolition of the building in these fills suggests that they were created during the use-life of the building (ie probably to the mid-16th century).

Stone-filled trench [372]

A fairly steep-sided trench [372] with a flat bottom was cut by the sewer trench at 167m north of the pillbox and *c*45m south of the gatehouse (Section X). It is 2.2m wide and 0.42m deep and was cut into the natural subsoil or rab. No datable artefacts were found within the very stony fill [66] but a post-medieval date is made likely by the existence of flecks of lime plaster among the stones. The trench is aligned SW to NE and will have run down the slope, roughly towards the SE corner of the graveyard. It may have been the foundation for a boundary, probably that shown on the 1809 Ordnance Survey plan of Mount's Bay's defences and on the 1834 estate plan (Herring 1993a, fig 41). This formed the western side of a large enclosure labelled garden in 1834 and shown containing conifers on the 1843 map (*ibid*, fig 42).

Garden wall [15] and associated landscaping

A well-built stone-faced wall with a core of earth and small stones [15] was cut by the trench at 132m north of the pillbox. Facing stones were carefully laid and where necessary were trigged with smaller ones. In places there are patches of lime mortar, suggesting that the wall was given a masonry finish. As it survives, below the present ground level, the wall is 0.84m wide and 1.0m high.

The wall is built on the floor of a shallow trench cut during landscaping apparently directly associated with its construction. In places this brought the wall directly onto the rab, but in the western section the wall is sitting on a truncated early pit, possibly prehistoric [345] (see above). In the pre-wall landscaping, shallow trenches were cut through earlier soils [2 and 8] to a distance 12m south of the wall. These were later infilled to smoothen the landscape again, and although some of the artefacts found in these infill layers [10-14] have been provisionally given dates which extend into the 19th century (see Appendix 2), it seems most likely that they were already in place by the time the wall was itself truncated some time between 1857 and 1876 (see below for date), and possibly from soon after the wall was built (perhaps in the mid to late 18th century; see below).

It appears, from comparing plans, that the wall formed the short south side of the garden shown on the 1834 and 1843 estate plans (see Herring 1993a, figs 41 and 42, and site 91595). William Jenkyns photographed this garden in *c*1857 (see Thomas 1988a, fig 53; Herring 1993a, fig 38). Its east wall is shown to have been built vertically, of coursed rubble with rounded coping stones; and there is indeed an appearance in the photograph of mortar pointing. Judging from the blocked door visible in the photograph, the wall was *c*2m high. By *c*1857 (Jenkyns photo) the walls were part covered by ivy, and the rhododendrons or laurels within the garden were standing about 4m high. The neat work of the wallers would not be out of place in the mid to late 18th century, and the blocking of the door is itself evidence for time-depth.

The garden was reduced in size by 1876 (OS 1:2500) and the wall taken down to the level of the ground on its external southern side.

Nineteenth-century landscaping

To the north of the garden wall (above), and extending over a stretch of 41m, the sewer trench cut through complex layers which represent the many very short-lived episodes of three fairly clearly distinguishable phases of mid to late 19th century landscaping works (Sections IX, X and XI). These were associated with the transformation of the Mount which took place between *c*1860 and 1900. The fishing and exporting/importing functions of the harbour were gradually run down and the infrastructure that supported them (ore hutches, warehouses, fishing cellars, lofts and stores etc) was taken in hand by the estate on the termination of leases to be largely removed and replaced by estate buildings (see Herring 1993a). A wall with gatehouse was built to divide the partially re-organised village from the rest of the Mount which was itself given the character of a park. The landscaping layers visible in the trench are associated first with the removal of the garden whose southern wall [15] is described above, and then with the dumping of rubble and other debris from the village, occasionally removing some of this dumped material for reuse elsewhere on the Mount, and finally the smoothing and grassing over of an area which for several years will have been regularly disturbed and uneven.

A - earliest phases

The earliest phase of the landscaping, most clearly visible in the western section of the sewer trench but also recorded in the eastern, comprises a number of overlapping layers of mainly loamy soil [22, 23, 24, 25, 19, 27, 28, 29, 30, 35, 37, 39, 40, 41, 42 and 44] dumped into broad and unevenly bottomed pits [349, 350, 352, 353, 356 and 358]. The earliest pits were cut into the rab, removing all earlier layers (prehistoric, medieval etc) from this part of the Mount, and the later pits were cut into the earlier landscaping layers.

It appears that the soil from the walled garden was removed, and presumably reused in other gardens elsewhere on the Mount. The earliest pits were, however, cut well below the base of the garden soil and into the rab, digging at least 0.3m into it, removing many tons, and becoming in effect small quarries. Rab will not have been particularly good for gardens so another use must be sought. As well as surfacing tracks (its main use in early modern Cornwall) it will have been appropriate for building up layers in landscaping works. Once the job for which it was taken was complete the quarries were themselves infilled, partly to reinstate the land surface and partly to absorb some of the rubble and debris from ongoing developments in the village. As noted above, some of the pits were themselves cut into earlier dumping layers and it seems that the workers were effectively using this area as a temporary dumping ground for materials which could be re-used elsewhere in the vicinity, either for building up ground levels or as reasonable garden soil. Pits newly formed by the removal of material were then infilled in turn with more debris.

Some of the layers contain large quantities of building debris; for example *c*70% of context 23 and *c*85% of context 29 comprise small and medium stones, and context 41 is largely made up of Cornish roofing slates. Fragments of roofing slates and ridge tiles, bricks, nails and lumps of plaster are found in many contexts. It seems likely, considering the changes occurring in the village in the later 19th century, that the material was brought from here; artefacts found amongst the rubble are relatively mundane and are largely 17th to 19th century (Appendix 2). Although some of the layers are very rubbly, most contain large proportions of apparently good loamy soil making them targets for workers seeking reasonable soil for gardens.

B - middle phases

It appears that the old garden wall [15] was still visible, probably as a low retaining wall with height only on its northern side, after the first phases of landscaping (above) were complete because the layers representing the middle phases run up to and abut it. (NB context 33 appears to be a smear of rab left by the JCB bucket, and should be ignored when considering the eastern section.) These layers [18, 19, 20, 21, 26, 34, 36 and 38], some of which were themselves re-cut by shallow pits [346, 347, 348, 354 and 355], all lie above a fairly level floor which cut through the tops of many of the layers of the earlier landscaping phases. This 'floor' appears to be the base of a large shallow quarry which removed some of the material of the earlier dumps, for use in the sorts of landscaping and gardening works already alluded to, presumably somewhere in the vicinity of the village.

The shallow quarry was then itself re-filled with layers of loamy and sandy soil, again containing fragments of bricks, plaster, charcoal, nails etc, as well as artefacts of all periods from prehistory through to the 19th century, and apparently originating in the village. The numerous recuts of these layers by shallow pits, themselves infilled with similar material indicates that the same state of flux existed as in the earlier phases, with workers alternately

robbing this area for landscaping and gardening material and then dumping debris from other areas of the village.

Cultivated soil [1]

Overlying the layers of the middle phases of the 19th century landscaping is a cultivated soil [1], 0.15m deep and thus possibly ploughed. It also extends all the way to the southern end of the sewer trench and overlies the partially removed garden wall [15] as well as all the earlier features to the south. This cultivated soil was itself cut by the final phases of landscaping (below) and can be associated with late nineteenth cultivation to improve the grasslands here on the eastern slopes. These will have been within the ornamental park so there is little likelihood that arable crops were taken; a few sheep and Jersey cows were, however, grazed on the Mount at the end of the 19th century and beginning of the 20th (see *Kelly's* 1888, 959; Herring 1993a).

C - final phases

For a distance of 30m running northwards from a point 70m south of the gatehouse, the various loamy layers dumped in the first and second phases of landscaping (above) were dug into and largely removed. Reasonable garden soil was clearly known to lie in depth here, and it may be assumed that those who took it remembered it being dumped. The soil taken was presumably reused elsewhere on the Mount, perhaps in the gardens (site 91633, see Herring 1993a, 159) being established in the final quarter of the 19th century immediately south of the harbour village.

The shallow pits (up to 1.0m deep) created by the removal of the soil [359 etc] will have been unsightly and it is likely that they were immediately refilled to create an even surface which was then covered by the topsoil [48, below] which supports the lawns which are still here. Infilling was done with soil which was much less good than the loam removed; it included debris from demolished buildings (presumably from the harbour village) and sand apparently dug out of the harbour. The latter contained medieval and post-medieval village rubbish and material lost from ships, including some chunks of coal.

As in the earlier landscapings, there appear to have been numerous minor episodes, including several recuts into the new sandy and rubbly layers [360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371] and the deposition of an equal number of refills. It seems most likely that this area was again in a state of flux for a period when there were important landscaping works in progress to the north-west around the southern edge of the village, and to the north-east around the laundry, graveyard and the lawns to their south. Workers appear to have come here to excavate material either for gardens or for infilling declivities, and the area may have looked like a building site for a number of months, or even a few years. When the works were over, the land was reinstated to form a smooth surface, and topsoil was laid as a bed for lawns (below).

Topsoil for lawns [48]

Sealing the last layers of 19th century landscaping is a thin layer of dark brown humic and loamy topsoil [48], never more than 0.1m deep, but giving the landscaping a smooth finish and providing an even bed for mown lawns. The shallow spit containing the topsoil clearly cuts the earlier cultivated soil [1] at 141m north of the pillbox and 70m south of the gatehouse. The presence of post-medieval and modern artefacts may suggest that the topsoil was re-used from the Mount, perhaps being part of the old topsoil [1] which may have been

carefully stripped off the top of the earlier landscaping layers and saved to one side while the deeper loams were removed and replaced by more sterile sands (see above). This final landscaping was confined to those gentle slopes immediately visible to visitors passing through the gatehouse.

Road surfaces [83]

At the northern end of Area B the 19th century topsoil was cut and partly overlain by late 19th and 20th century gravelled road surfaces [83]. These are described in detail under Area C (below).

2.2.3 Area C South of the gatehouse (Sections XII and XIII)

This is the 14m immediately south of the ornamental gate through the wall separating the village from the Mount, built in 1877 (see Herring 1993a, site 91612), probably to a design by Piers St Aubyn the architect then working on the residential extensions to the summit complex. Both sides of the trench were cleaned and drawn, as the western contained a substantial pit or trench [333], and the eastern a vestigial bank [151].

Altered rab

On both sides of the trench in Area C are irregular patches of apparently altered rab [155, 167 and 173], browner, damper and darker than the normal yellow/orange rab. They have a few flecks of charcoal, suggesting some human intervention, but unfortunately no artefacts were recovered. The patches have uneven bottoms and do not appear to be cuts, pits or trenches. Like those noted in area B, above, they are thought most likely to be natural, not cultural.

Stony bank [151]

The remains of a slight stony bank [151], 0.6m wide and 0.2m high in section, were cut on the eastern side of the trench 16m south of the gate (Section XII). It lies beneath the kerb of the flower bed, which has edged the graveyard since at least the early 1900s (see Herring 1993a, fig 44). The bank is not recorded on any of the 19th century maps. Unfortunately it was not visible in the western section - perhaps because this side ran through a gateway - so we are not sure what line the bank took. It lies very close to the south-west corner of the graveyard, and if it was indeed attached here then it appears to have been running in a roughly south-westerly direction, towards the spring and well later re-used in Piers St Aubyn's ornate dairy (site 91634).

19th century pit/trench [333]

The western side of the trench cut through a substantial pit or trench [333], at least 1.45m wide and 0.86m deep, with steep sides (Section XIII). It lies 12m south of the gateway and appears to have been left open for a while, as a silty loam with many small water-rounded pebbles was deposited at its bottom. Artefacts found within the higher fills of the pit/trench [169-171] suggest a 19th century date (see Appendix 2). The pit pre-dates the road surfaces associated with the 1877 gate (see below) and it lay only 3 or 4m south of the old gate onto the Mount (see Herring 1993a, fig 42, for 1843 plan showing this gate). The topmost layer [172], was an uneven spread of demolition debris, including fragments of red brick, mortar, and roofing slates, as well as medieval and post-medieval pot sherds, which will have projected untidily through the earliest two road surfaces [154 and 166]. It may be that the pit was dug during the demolition of the old village wall.

Victorian drain

All five road surfaces (below) overlie a neatly built drain [328], 0.47m deep and 0.82m wide, with side walls of small granite stones, bonded by Portland cement, and blue slate floor. Its roof was also presumably of granite, but was lost from both sections (XII and XIII). Six even, thin layers of fine silt [158-163] fill the drain to half height; water was presumably fairly slow-moving for this to fall out of suspension and not be eroded away. The drain, while pre-dating the *c*1877 road surface, must post-date the terraced gardens (site 91633) to its west which are essentially of one build with the wall and gate. It seems most reasonable, then, to date it to the extensive 1870s landscapings and revisions. It may have drained the gardens themselves, but it is more likely, given the quality of its finish, to have served a building, and the only building uphill of it of the 1870s is the ornate dairy (site 91634), again designed by Piers St Aubyn.

Victorian gateway and modern road surfaces

The foundations of the 1877 ornate gateway were revealed in the western section (XIII). A substantial granite-built foundation wall [331] supports a squared and dressed granite stone, 0.6m wide and 0.33m high, on which a cast-iron gate-stop is fixed. The stone's top is now flush with the road surface, but when first installed would have stood 0.2m proud, presenting few problems for the horse-drawn vehicles which will have made their way through the gate to the south-eastern door of the then recently extended summit house. The first, Victorian road surface [154] was of small rounded pebbles and gravel; it was laid over fairly uneven ground and so fills in shallow declivities. The four later road surfaces were all simply laid on top of their predecessors, and are of uniformly shallow depth. A granite and lime mortar finish given to the second surface [166] presumably did not serve well (it may have broken up and become unsightly), and all later surfaces were of loose gravel: small rounded pebbles [165], light green/grey gravel with granite chips [153], and finally, the present granite gravel [152].

2.2.4 Area D In the village (Sections XIV and XV)

The trench terminated at its northern end at an existing sewerage tank on the south side of the so-called bowling green, the site of harbour village buildings demolished early in the 20th century (see Herring 1993a, site 91623). The trench's sides were cleaned and both west and east sections were drawn, recording complex, urban layers in the stretch where it crossed the small lawned area uphill of the bowling green. To the south of the fuschia hedge defining this area, the trench could not be recorded for logistical reasons. In both sides of the trench, layers of cobbling [110 and 195] could be seen continuing southwards into the unrecorded area, but the stratigraphy was also becoming simpler towards this southern end (see Sections XIV and XV).

The lawned area to the south of the bowling green had been part of the built-up harbour village area until the mid-19th century. A courtyard with buildings on three sides is shown here on the 1834 and 1843 maps (Herring 1993a, figs 41 and 42). Although not labelled as such, these were almost certainly fishermen's cellars. Their layout is very similar to several others in the village which are labelled 'fish cellar', 'loft and cellar', 'salt cellar under' etc on the 1834 map, and others which still survive intact in Cornish fishing towns and villages like Newlyn, Mousehole, St Ives, Port Quin and Porth Gaverne.

An early photograph by William Brooks, probably taken between 1864 and 1866, shows the buildings, at a distance, from a position high on the north side of the Mount, near the Civil

War gateway (Thomas 1988a, fig 20). This photograph shows that the eastern and southern buildings had single-pitch roofs sloping into the small central courtyard; the western building, unfortunately in shade in the photo, is likely to have been similar. The buildings were single-storeyed, and we can imagine, from other sites, that their inner walls were open, the roof supported by stone or wooden posts. The 1834 plan appears to indicate this by showing the inner walls with crosses on their lines.

These cellar buildings were demolished some time between 1864-6 and 1876, as the ground here is shown open, with only the southern wall of the building retained, on the 1876 OS 1:2500 map (Herring 1993a, fig 43). (The 1864-6 Brooks photograph, mentioned above, shows that other fish cellars had already been demolished by its date; compare it with the 1843 plan.) The southern wall was itself demolished by the 1890s when numerous postcards of the Mount show a post and chain fence enclosing the grassed area. The 1908 OS 1:2500 map shows the present low kerb outside the fuschia hedge (Herring 1993a, fig 44). These maps and photographs give useful final dates to fairly complex sequences of events which were nevertheless largely of the early modern period, judging from the artefacts found in the deposits recorded in the sections.

Few features can be confidently assigned pre-17th century dates, and it seems that early modern fish cellars may have been built on levelled platforms cut through earlier layers, at least in this corner of the village. An early medieval grave [321] had its top truncated by the lowest cobbled cellar floor [122] to a depth of perhaps 0.5m. This grave, presumably part of an early cemetery, can be used to suggest that early settlements (prehistoric to 15th century AD) were located to the west of the natural causeway, and thus west of area D (see 8.6).

The following description of principal features is arranged according to the relative chronology apparent in the stratigraphies recorded in the trench sections.

Altered rab

In the southern parts of both sections there were uneven stretches of altered rab [197 and 210], similar to contexts [155, 167 and 173] in Area C, but lacking flecks of charcoal.

Possibly prehistoric pit / trench [320]

Towards the south end of the west section (XIV) a flat-bottomed pit or trench [320] cuts through the altered rab (above). It is steep-sided and 0.44m wide and 0.46m deep in section (although its top may well have been truncated by later features cutting through it). A single flint chip was found in its medium brown loam fill (which was unusual in Area D for having no fragments of roofing slate or lime mortar). The pit was trowelled back into the section for a distance of 0.25m and shown to continue with a regular width and depth; no further artefacts were found. The feature did not exist in the eastern section so had an eastern edge somewhere within the sewer trench. A second flint flake was recovered as a residual item in an early modern layer [188] 3m to the north but no other certain evidence of prehistoric activity was found in Area D; the trench/pit towards the northern end (below) may also be prehistoric although there is no absolute dating evidence for it. As noted above, the apparent platforming into the slope to accommodate fish cellars will have effectively removed most prehistoric, Romano-British and early medieval remains, at least in this corner of the village.

Trench/Pit [305/309]

It seems possible that an irregular-bottomed pit/trench [305/309] visible towards the north

end of the western section (XIV) pre-dates the earliest cobbled floor [122/131], although relationships are confused, partly because a large pot [138/306] was sunk into the area as the train oil sump of the last cellar. It is not possible to be sure that the pit-like features on each side of this pot are part of the same cut; their fills are rather different, that to the north [133] being a dense grey silt with no stones, and that to the south [139] being brown/grey silt with small and medium-sized stones. The tops of the fills do appear to have been truncated to accommodate the cobbling, thus pre-dating it. If a single feature, it is 1.5m wide in section, and 0.35m deep below the cobbling although it may have been deeper originally. No artefacts were found in either fill so a medieval or prehistoric origin is not impossible.

Christian burial [321]

In the eastern section of the trench, 6.5m south of the termination, is a steep-sided cut [321], 0.52m wide, which was not bottomed in the trench (Section XV). Its fill, of grey/orange clayey loam [201], was clean except for 15 fragments of human bone (Appendix 4). The feature is primary in relation to all other features in its part of the trench, and the lack of slates, lime mortar and charcoal flecks in the fill is also a useful indicator of a relatively early date. The grave is orientated east-west and was thus presumably that of a Christian. Radiocarbon dating of the bones confirmed that it is early medieval, the calculation to one standard deviation being cal AD 893-1014 (cal BP [1950] 1057-936), and to two standard deviations cal AD 818-1030 (cal BP 1132-920).

The grave's proximity to the apparently post-medieval walled graveyard, just 13m to the east, is probably not significant as running between them is the principal track from the causeway to the Mount, which is likely to have more or less followed its present route since at least the 15th century when the piers of the harbour were built (see Herring 1993a). The grave might instead be related to a pre-Norman settlement of Christians, perhaps located adjacent to the harbour. The settlement's position may be assumed, from the locations of the grave and the causeway to have been a little further to the west (see 8.6). (NB The land drain watching brief of 1998 yielded a sherd of possibly contemporary pottery as well as two sherds of earlier post-Roman amphorae, all of which probably originated in harbour-side settlements. See Section 6)

Cobbled floor [122]

A level cobbled floor [122] laid directly onto a platform cut mainly into the natural rab is the lowest level of much of the northern part of Area D. Cobbles are water-rounded granite, presumably collected from the shores around the Mount, set into medium brown loam. In the western section the cobbling's southern edge is marked by a large rectangular granite stone set on end, 0.26m high, perhaps forming the bottom course of a now lost wall [182]. Immediately to its south is a broad shallow gully, which may have been a lane (see below).

As it survives, the cobbling extends for *c*6.5m north of this wall and was probably the floor of a yard or building. Two fragments of clay pipe stem found among the cobbles provide the only dating evidence, confirming a post-medieval origin, and suggesting a 17th century date. There are, of course, good references to late medieval fish cellars on the Mount including the 1481 rental detailing ten recently built houses including a fish cellar (Fletcher 1951, 61) and in *c*1535 john Leland recorded 'certen howses and Shoppes for Fyschermen' (Pearse Chope 1918,18). If it is post-medieval, the feature may have been related to the fishing village re-established in the 1720s by Sir John St Aubyn III (Herring 1993a, 140). Its southern edge, however, is against a lane lying *c*3m further north than the Middle Street apparently

established by the baronet (see below); this relationship may suggest that the cobbling is rather earlier.

There are several 17th century references to fishing and associated cellars. In 1631 Hanniball Newman leased the 'tythe of fish' belonging to the Mount, together with the cellar used for saving and laying the tithe fish (RIC, Henderson Calendars, 16, 89) and in 1639 he leased a hoouse or cellar called the Brewhouse, 50 feet square with permission to enlarge it and build a new cellar (*ibid*, 91). A William Dustian died in 1662 and left the gear and tackle of a pilchard fisherman (Mason 1990, 10).

Probable lane [178 and 322]

To the south of the lowest layer of cobbling [122], in both sections, is a broad, shallow gully, 2.2m wide in the eastern section [322] and 2.5m wide in the western [178]. It is early in the relative chronology although it post-dates the early medieval grave (above). Its east-west orientation alongside the cobbling suggests that it was a lane or street, probably a fore-runner of Middle Street as a thoroughfare running parallel to the harbour village's front street.

Wall / bank [196 and 208]

Footings of a narrow wall [196 and 208] survive in both sides of the trench towards the southern end of Area D. Medium sized granite stones were carefully laid to form a 0.66m wide foundation, a width typical of post-medieval Cornish stone masonry walls. The footings lie at approximately the position of the southern wall of the last fish cellar, as shown on the 1876 OS map, but underlie the cobbling [110] which must relate to this last episode. It seems likely, then, that these are the remains of an earlier wall on the same line, not surprising as this also forms the north side of Middle Street against which buildings may have been expected to have been built since at least the 18th century.

Middle Street appears to have been first documented in the 1851 Census Returns. Other named streets were Fore and Higher Streets, either side of and parallel to Middle Street, and Mevagissey Lane, presumably one of the cross-passages. These streets, mapped in 1876, 1843 and 1834 (see Herring 1993a) were presumably those '3 or 4 streets... .consisting chiefly of dwellings occupied by those engaged in the fishery; and store-houses for the pilchards' recorded by Warner in 1809 (197). They were probably established by the 3rd Baronet in the 1720s (Herring 1993a, 140). Middle Street's existence beneath the last cobbled floor adds weight to the suggestion that the earlier lane [178/322] and the lowest layer of cobbles [122], both of which precede it in the relative chronology, are pre-18th century.

Cobbling/Middle Street [195]

In the western section, an area of level cobbling [195] ends at the line of the wall/bank [196]. It overlies altered rab and the possible prehistoric pit (see above), but is also likely to have been levelled into the slope. The cobbling is almost certainly that of Middle Street. In the eastern section the cobbling is continuous with that of the last fish cellar [110], although its surface is ramped up over the old wall [208] before becoming level again at the street, as if the eastern section passed through a doorway in the cellar's southern wall.

Layers north of the final cellar

The cobbled floor [110] of the final cellar (see below) ends *c*2.5m short of the present northern wall and to its north is a series of thin layers of fairly compact soil (as if well trampled) with various artefacts of early modern date [103-107 in the eastern section, 125-

130 in the western]. With their level tops and the debris of demolished buildings, they have the appearance of waste ground or similar, but here they are interpreted as possibly the floors of an alley running east-west, to the north of the building with the cobbled floor [110]. Support for an interpretation as an alley comes in the form of a 1m wide cobbled layer [128] surviving towards the bottom of the western section.

Dumping layers between the two cobbled floors

Much of the central part of each section is made up of dump layers, most of which are fairly even spreads but some are within pits or trenches cut through other spreads. Although it is possible to present a sequence of dumps and pits, this adds little to our understanding of the history of the village beyond indicating that this corner of it was used for a period, probably in the 17th, 18th and early 19th centuries, as waste ground, not just as a dump but also as a source of landscaping material - as digging for such seems to offer the best interpretation of the pits. It also shows how much development was going on elsewhere in the village during this period. There are numerous spreads of broken roofing slates, chunks of lime plaster and mortar, and layers of ash and fish scales [112-116, 119-121 on eastern side, 140-149, 174 on western]. Dozens of broken clay tobacco pipes were also collected from these contexts.

One of the earliest dumps included a granite pilchard press stone, or weight, now on display outside the island shop, which an authority on the pilchard industry notes is unusual in retaining its iron hook (Michael Tangye, pers comm). These stones, weighing about a hundredweight, were hung on the ends of long pressing poles which acted as levers pushing down wooden covers, or bucklers, into barrels filled with pilchards to express the little fishes' oil, or 'train', through the crevices in the barrels (see Noall 1972, 39-40 for a full description of the process).

It is possible to suggest that many of the dumping episodes took place before the shift of the lane southwards to Middle Street, and thus pre-date the 18th century re-arrangements. The lane is infilled with a relatively consistent orange-brown clayey loam [178 and 202] which seems to have developed its 0.4m depth during the period when numerous small dumps were made to its north, on the site of the old fish cellar. It is itself overlain by further dumps, confined by Middle Street, which are generally deeper and broader [175, 180, 184, 186, 188, 203-4] than the earlier ones.

Cobbled floor [110]

A neatly laid floor of water-rounded granite cobbles [110] dominates the upper levels of both sections (Fig 10). It ends 2.4m short of the north wall, at the line of the suggested alley (above), and is almost certainly associated with the last fish cellars on the site, those mapped in 1834 and 1843, and shown in the 1864-6 photograph. The alley was not shown in any of these mid-19th century images but the northern strip of the yard appears to have been left uncobbled.

The floor is remarkably uneven, dipping down dramatically at an angle of 18° at its northern end, presumably to assist drainage. The central part, however, is relatively level but it is clear that the builders of the cellar set their floors as they did for functional reasons; they landscaped their ground before building, cutting the tops off some dump layers and adding others [eg 206] to make up desired levels. At the uphill southern end, the cobbling stops in the western section to be replaced by a roughly levelled floor of loam (within the southern building), while in the eastern section the uninterrupted cobbling ramps up to join that of

Fig 10 Part of the cobbled floor [110]

Middle Street, presumably passing through a doorway.

Towards the northern end of the western section a large Burmese Martabani stoneware storage jar, probably originally used on a trading ship for storing drinking water, was reused as a train barrel [138], set into the ground with its mouth at floor level to receive and store the 'train' or fish oil pressed from the pilchards in the western cellar (see Section XIV). Much of night-time Cornwall, before the arrival of gas, was illuminated by lit wicks (plaited rags or peeled rushes) in train lamps, commonly called chills (good example on display at Penzance Museum). The oil was also exported further afield:

> 'Pilchards! whose bodies yield the fragrant oil
> And make the London lamps at midnight smile!'
> (Cornish song cited in Nance 1963, 165).

Post-abandonment demolition and burnings

Spreads of soil with building debris and burnings on top of the final cobbled layer [110] probably relate to the demolition of the last cellar sometime between 1864-6 and 1876 (Brooks photo and OS 1:2500). As far as the sections inform us, the remains were tidily cleared away, the spreads of ashes [118, 150, 183] suggesting that wooden material was burnt on site, within the open yard defined by the southern building's south wall. The old train barrel was left in place, and the largely cobbled enclosure was probably used as a storage yard, there being little evidence for the development of a soil, which could sustain plants.

Landscaping and lawns

Shortly after 1876 (OS 1:2500), and certainly before the 1890s postcards (which show a lawn with post and chain fencing), the yard's southern wall was demolished and the area landscaped. A layer of redeposited rab, local subsoil, reaching 0.6m deep at the downhill northern end, was spread over the whole area [102, 189], and then an even depth of topsoil [100] added, to support the lawn. The rab has a few artefacts mixed in with it (one or two later medieval and post-medieval sherds, and flecks of charcoal), enough, perhaps, to confirm that it came, as would be expected, from fairly close by, within the area of the village. The late 19th century dating strongly suggests it was barrowed down the short distance (*c*25m) from the rectangular gardens terraced into the slopes immediately uphill of the village's perimeter wall (sites 91633 and 91612; see Herring 1993a). The relationships between the terraced gardens, the Victorian drain and the road surfaces associated with the ornate gateway, in Area C (above), suggest that this landscaping was almost certainly undertaken in 1877, the year the gateway was built.

2.3 Finds report

by Carl Thorpe, Henrietta Quinnell, John Allan and Peter Herring.

See Appendix 2 for detailed catalogue of finds, organised by contexts.

2.3.1 Introduction, *by Carl Thorpe*

The large numbers of artefacts retrieved from the sewer trench cover a wide time span, reflecting the main periods of occupation or use of the Mount. Some artefacts provide the first direct confirmation of activity in periods that previously had only been suspected or surmised, especially the Neolithic, and the Iron Age (see Herring 1993a).

A large number of artefacts, 1330 in total, were recovered (540 of which came from the heaps of spoil). Pottery comprises the largest group within the assemblage, but there were also stone artefacts, metal, bone, glass, and clay pipes. This section deals with the artefacts largely in isolation from their contexts; for more general discussions of the distributions of the finds, their association with particular contexts or areas, and their relevance to the prehistory and history of the Mount and west Cornwall see Sections 2.2 and 8.

The initial finds processing stages of cleaning, marking and sorting of the artefacts were carried out by Imogen Woods. This greatly simplified the task of identification. Currently all the artefacts are being temporarily stored in the CAU offices, Kennall Building, Old County Hall, Truro, Cornwall.

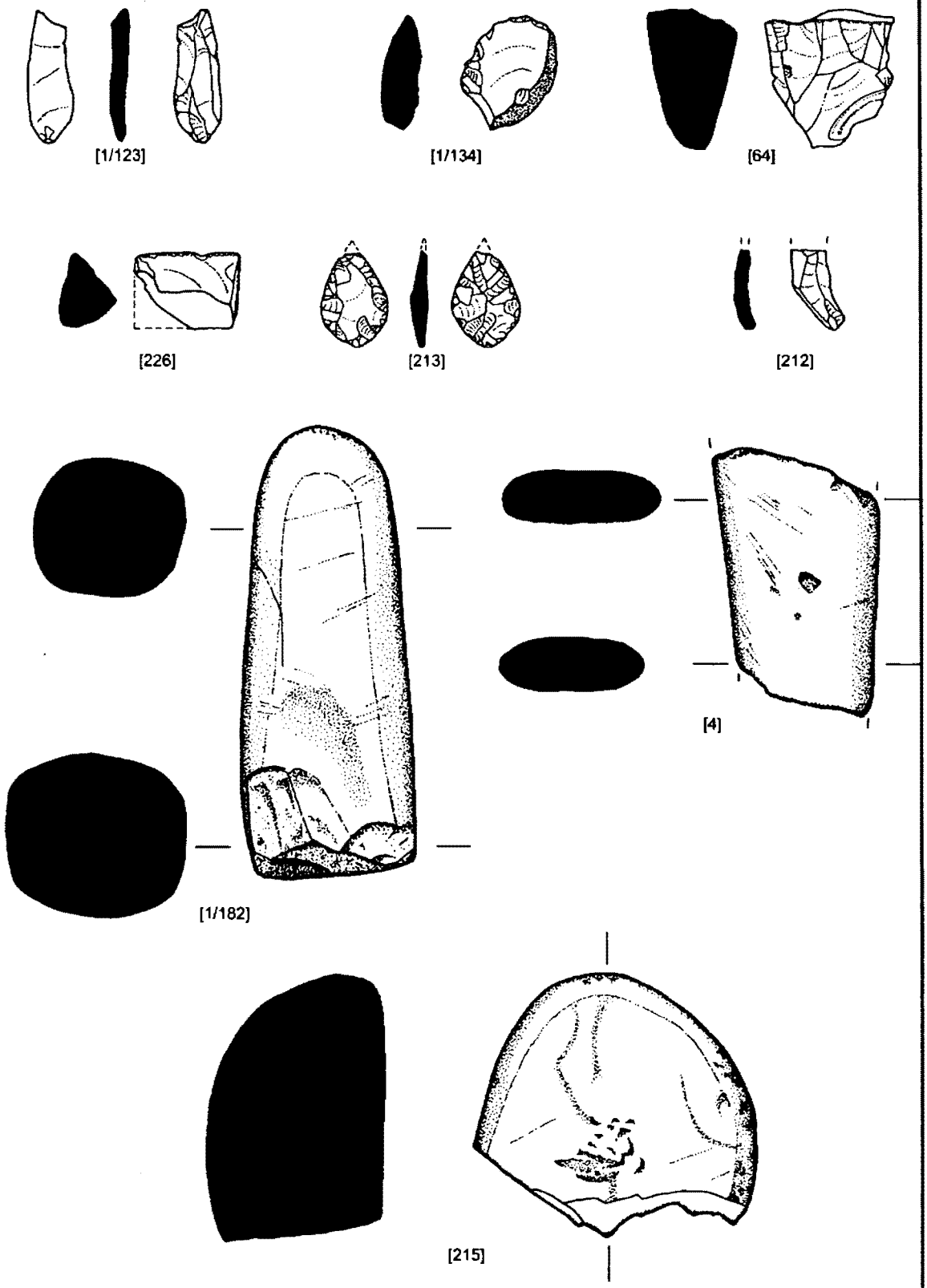
2.3.2 Prehistoric stone artefacts, *by Carl Thorpe and Peter Herring*

The flints were also looked at by John Allan (Royal Albert Memorial Museum, Exeter), Steve Hartgroves and Anna Lawson Jones (both CAU).

Mesolithic (*c*8000-*c*4000 BC)

No securely diagnostic Mesolithic artefacts were recovered during this project, certainly no microliths, although a chert blade in context [212] (on the eastern slopes) is of microlithic shape (but not form) and a narrow flint blade found within context [5] (in the area of the harbour village) could also date from this period.

Fig 11 Selected prehistoric stone artefacts. Numbers refer to contexts (see Appendix 2 and Section 2.3.2). Drawings by Carl Thorpe.



Neolithic (*c*4000-*c*2000 BC)

A leaf-shaped arrowhead similar to those found at the Neolithic tor enclosures at Carn Brea (Mercer 1981) and Trencrom (Herring 1999) was found on the eastern slopes in context 213. The arrowhead's tip is broken, suggesting use. Part of a possible polished stone axe or adze (typical artefacts of the period) was also found on the eastern slopes, in context 4. Unfortunately both the cutting edge and butt end had been broken off in antiquity which makes definite identification impossible. The stone was later reused as a whetstone.

Many of the other flint tools found in the sewer trench could also be Neolithic, notably a crude scraper in context 181 and a serrated edged flake in context 231, both in the village area, but most are not sufficiently diagnostic to confirm this.

Bronze Age (*c*2000-*c*800 BC)

No securely Bronze Age stone artefacts were recovered from the sewer trench although two flint borers (from contexts 170 and 235, towards the northern and southern ends of the trench respectively) could be Bronze Age, and several other flints may be either Neolithic or Bronze Age.

Iron Age (*c*800BC-AD40)

A second stone in context 4, of quartzite, may, like the reused Neolithic axe/adze, have also been a later prehistoric whetstone. Nearby, in the fill of the medieval grave [215], were a small water-rounded greenstone pebble, possibly reused as a whetstone, and a quartzite rubbing or hammer stone with a flat surface and striations. Built in to the wall of the later medieval building [221], the possible banqueting hall, were two parts of a broken mueller or rubbing stone, as used on saddle querns. These were not recovered and remain *in situ*.

A large granite saddle quern, on which grain was ground manually using rubbing stones or muellers, was found in the base of the floor [235] of the Late Bronze Age or Early Iron Age house platform in Area A. It is a water-rounded stone that appears to have been shaped to form a more comfortable shape for its user. Built into the exposed wall of the later medieval building to the north-east [221] are two parts of a broken mueller stone, a granite beach pebble that has been rubbed to a flat polished surface on one side.

2.3.3 First Millennium BC and Roman period ceramics, *by Henrietta Quinnell*

(NB Henrietta includes in her report the prehistoric sherds found in 1997 in the summit trenches and in 1992 in the eastern cliff exposures; see 5.4 and 7.3.)

Introduction

It has been suggested that St Michael's Mount is the Iron Age tin trading island of *Mictis* or *Ictis* described by both Pliny and in greater detail by Diodorous Siculus (see Herring 1993a). This project recovered some 124 sherds of pottery that can be assigned to a broad period from *c*1000 BC through to the Roman centuries, suggesting that there was a settlement of some significance and size on the Mount covering the time for which any reference to Ictis may be relevant.

Late Bronze Age/Iron Age and Romano-British pottery from West Penwith, the Lands End peninsula, has been little studied, especially in the decades since Peacock's recognition in the late 1960s of gabbroic pottery. The classic collection of material from the general area is that from Bodrifty (Dudley 1957), running from the Middle Bronze Age through to at least the

end of the Iron Age. This was published when what is now recognised as gabbroic fabric could be published as 'shell tempered' ware; however Dudley's broad descriptions of fabrics as related to the typological sequence of the 1st millennium BC are clear and can be correlated with some confidence to the fabric groupings proposed below for the Mount. The assemblage from the Mount is remarkable for the variety of fabrics present; confirmation of parallels with Bodrifty comes from a rapid scan of the collection in the Royal Cornwall Museum. This variety of fabrics appears to be a feature of the Late Bronze Age and the Early Iron Age. The range of fabrics becomes increasingly restricted with the spread of South Western Decorated/Glastonbury styles by around 300 BC, with gabbroic wares gradually becoming predominant (Quinnell 1986, 114). This general trend towards predominance of gabbroic fabrics is supported by the 1970s work at Carn Euny, where, from around 500 BC, gabbroic fabrics gradually replaced a range of granitic material (S Elsdon in Christie 1978).

It may be suggested with confidence that use of a wide range of fabrics extends back toward around 1000 BC, roughly the beginning of the Late Bronze Age. At this time of transition from the Middle to the Late Bronze Ages there is change both in fabric and in ceramic forms in Cornwall. In the Middle Bronze Age fabrics tend to be restricted to gabbroic and to gabbroic admixture wares used in Trevisker Ware (Parker Pearson 1990). During the Late Bronze Age these were replaced by a range of shouldered jar and carinated bowl forms (Barrett 1980) that may be conveniently referred to as Late Bronze Age Plain Wares. The stylistic tradition of Late Bronze Age Plain Wares continues through the Earlier Iron Age in Cornwall, perhaps down to the introduction of South Western Decorated styles (Quinnell forthcoming). This stylistic tradition is that formerly called 'Early Iron Age', or even 'Iron Age A', terms used for example in the Bodrifty report. In discussion of the collection from the Mount present knowledge only allows us to distinguish material as Late Bronze Age to Early Iron Age (LBA/EIA).

It is unfortunate that the collection contains few diagnostic pieces. The small size of most of the often abraded sherds suggests that most of these were deposited some time after, and possibly some distance, away from their final point of use. The absence of Middle Bronze Age material to date is consistent chronologically with the fabric range present, supporting initial activity from a date in the 1st millennium BC. It should however be stressed that with gabbroic fabrics, in use in Cornwall from the Neolithic to the medieval period, it is impossible to be certain about the date of body sherds in collections of largely abraded pieces without distinctive traits of form or finish. It is not impossible for example that Neolithic sherds are present, as it is impossible to describe body sherds with certainty as 'LBA/EIA' or early medieval.

Fabrics

The fabric groups distinguished below probably represent a simplified version of reality. It is expected that these groups will be expanded when larger assemblages become available for study. An extensive programme of thin-sectioning will be needed for the refinement of these fabric groups, which would be best not just confined to the Mount but covering material from cognate sites elsewhere in West Cornwall.

Fabric A, Granitic derived (20 sherds)

This pottery is made from clays obtained from a source where the minerals were originally derived from a granitic area, but had been transported by water from that source. A source in the periphery of the Land's End granite is likely. Distinctive minerals are mica and

tourmaline, both of which could travel some distance water-borne. Granitic derived fabrics lack obvious inclusions of feldspar and quartz that make granitic fabrics so distinctive. The fabric matrix tends to be fine and soft (so subject to abrasion). When oxidised, the matrix tends to be 5YR 6/4 (on the Munsell colour chart) light reddish brown, in which grains of tourmaline show up as black specks. The reduced version at first sight appears very different because it is dark grey 5YR 4/1 and the inclusions are less obvious.

This granitic derived fabric was first identified by Dr R T Taylor in a small group of material excavated by Time Team at Boleigh Fogou in 1995 (Quinnell forthcoming b). It is similar to the 'hard, fine, thin paste usually dark in colour' described by Dudley (1957, 23) as used for vessels of a late phase of 'Iron Age A' at Bodrifty. It appears to be represented at Maen Castle (F M Patchett in Crofts 1955). A tentative date range for the fabric at both Maen Castle and Bodrifty might be 800-400 BC; at Boleigh the suggested range is 600-400 BC. It has not been identified at Carn Euny where the sequence of activity appears to commence around 500 BC.

Fabric B, Granitic Admixture (11 sherds)

A variable fabric which appears to be based on a granitic clay, but which contains more feldspar than is normally found in deposits of decomposed granite and which may also contain other inclusions including rounded slate particles. This grouping almost certainly contains several different variants. Generally a reduced fabric reddish brown 5YR 4/3. Tends to be hard. This fabric is related to the granitic wares found at Bodrifty, Maen Castle, Boleigh, and Carn Euny. Granitic fabrics would appear to have been current through the first millennium BC, becoming infrequent after around 400/300 BC.

Fabric C, Gabbroic (48 sherds)

The fabric is soft, containing a large quantity of distinctive white angular grits (feldspars), and other minerals such as amphibole and black tourmaline (for petrological description see Williams, DF, in Carlyon 1987). It is thought to derive from clays from the weathering of the gabbro on the Lizard Peninsula. Colour and appearance vary widely according to whether fabric is oxidised or reduced. Some forms have a black coating on the exterior, which may sometimes be burnished.

Fabric D, Gabbroic with added temper (50 sherds)

As Fabric C but with sparse inclusions usually < 3mm of rock or grog. The appearance of this fabric differs from that of Middle Bronze Age gabbro admixture which has larger inclusions, usually of one distinctive rock type, and a coarser appearance. This fabric appears to occur in LBA/EIA forms but not in South Western Decorated forms at Bodrifty, and is part of a range of variant gabbroic fabrics which are now being recognised on 1st millennium BC sites. It occurs in Early and Middle Iron Age forms at Halligye Fogou and is examined in the report on the 1980s excavations at that site (Elsdon and Quinnell forthcoming).

Fabric E, Sandy Oxidised (4 sherds)

Soft sandy fabric with sparse inclusions of angular quartz and of mica, and probably some limonite, up to 3mm in size. All identified sherds oxidised 5YR 5/8 yellowish red. Surfaces tend to be abraded. The five sherds recognised all come from [227] and include P11 and one other rim fragment. No comparable fabric has been noted on other sites. Dr R T Taylor comments that the geological conditions for the components might be found in estuarine clays in West Cornwall but that a clay containing material from weathering of sedimentary

rocks is more likely: in the latter case the source should be looked for somewhere to the east of Cornwall. Lisa Brown has examined the sherds and finds no parallels in Wessex assemblages known to her. On balance a South Western, probably Cornish, source is likely but the possibility of an origin further afield, even in Brittany, can not be entirely dismissed.

Fabric F, Sandy Reduced (1 sherd)

A fine soft sandy slightly micaceous fabric with some inclusions of quartzite and limonite. Very dark grey 5YR 3/1. Burnished exterior with traces of black coating. Finger modelling very apparent. Only present in P1 from [235]. No known comparanda known from Cornwall. Lisa Brown identifies this as glauconitic sandy ware resembling her Hampshire fabrics D15 and D18. Glauconitic sandy wares were almost certainly made in the Nadder Valley to the west of Salisbury (Cunliffe 1984, 244-5 and fig 6.16).

Discussion of distinctive vessels and groupings

Context [235], infill of house platform [335]

P1 (Not illustrated) Body sherd of Fabric F from [235]. Glauconitic sandy ware from Wiltshire. Lisa Brown (*in lit*) considers that this sherd is of Early Iron Age date, rather than later. The ware, with a long chronological range in the Iron Age, is widely distributed in Wiltshire and Hampshire with an occurrence in Dorset at Maiden Castle (Cunliffe 1984, fig 6.16) but has not previously been identified further west.

The presence of Granitic Derived (A) and Granitic Admixture (B) fabrics suggest a date before the Middle Iron Age and the development of the South Western Decorated style. The suggested Early Iron Age date for P1 supports a similar date range for context [235] to that from [227].

Context [225], infill of pit [335A]

P2 Upright rim of jar; from vessel with rounded body and restricted neck. Fabric D with marked burnishing on both sides and black coating on exterior. Typical Cornish LBA/EIA form: cf Bodrifty No 4 (Dudley 1957, fig 9), Maen No 1 (Crofts 1955, fig 23), also P49-51 from Mount Batten (Cunliffe 1988, fig 14) and examples from Nornour (Dudley 1968, fig 5) where the range of forms completely span the 1st millennium BC.

Context [230], pit cutting medieval grave [338]

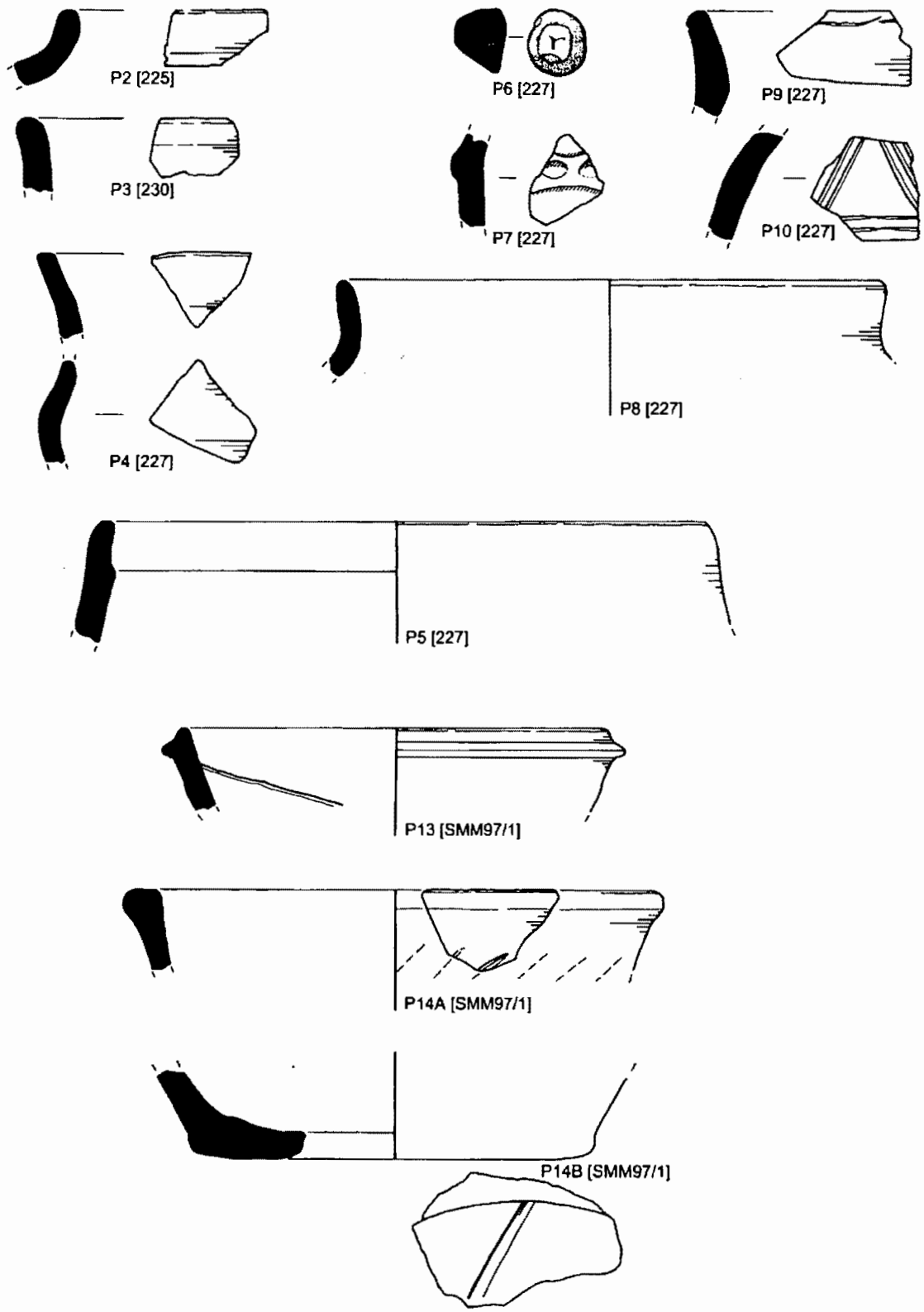
P3 Sherd from jar with everted rim. Fabric B. Form has a long chronology through the 1st millennium BC. The quantity of sherds in fabric B in this context suggests a date earlier, rather than later, in the millennium.

Spoil [227], possibly derived from rampart or accumulation behind it

P4 Two sherds, possibly from the same vessel in dark grey reduced granitic Fabric A. Everted rim sherd with slight internal concavity and squared top. Sherd curving up from girth to neck from shape which is globular, almost carinated. Generally a LBA/EIA date seems likely. Best comparanda at Mount Batten (Cunliffe 1988, fig 26) and at Dainton, Devon (Willis and Rogers 1951, fig 6), generally considered to be 'Early Iron Age'.

P5 Rim, flat-topped, with pronounced concave internal bevel, from vessel with apparently simple, outwardly flared, shape. Granitic admixture, Fabric B, reduced very dark grey on interior and burnished. Closest parallel is No 2 from 'Early Iron Age occupation layer' at

Fig 12 Selected prehistoric and Roman period pot sherds. Numbers refer to contexts (see Appendices 2 and 8 and Section 2.3.3). Drawings by Carl Thorpe.



Bodrifty (Dudley 1957, fig 9); the fact that it is not found in the relatively well-known South Western Decorated assemblages of the Middle to Late Iron Age supports an earlier date.

P6 Small lug, much abraded, with squarish section (just possibly the tongue from the insertion of a lug). Gabbroic Fabric C, but variant with sparse grains over 1 mm in size and reduced light gray with oxidised tip reddish yellow. Lugs are rare in the Late Bronze Age and Early Iron Ages (cf No 23 from Bodrifty, Dudley 1957, fig 9) but apparently unknown in the Middle /Late Iron Age South Western Decorated tradition. As lugs are common in a variety of shapes in the Middle Bronze Age (see figs 41-51 in Nowakowski 1991), it is just possible, given its abraded condition, that it was redeposited from a Middle Bronze Age context. Against this suggestion must be set the small amount that is known about assemblages of subsequent date.

P7 Sherd from angle of carinated vessel with zone of finger tip impressions around girth. Fabric D, gabbro with added temper. The form and decoration are typical of long lived jar forms in Late Bronze Age Plain wares and their successors in the Early Iron Age (Barrett 1980, figs 5 and 6), Nos 11-12 from Bodrifty (Dudley 1957, fig 9), Nos 7 and 9 from Dainton (Willis and Rogers 1951, fig 6).

P8 Sherd from everted rim of jar. Fabric D, gabbroic with added temper. Simple shape could occur anywhere through 1st millennium BC but fabric suggests a date before the Middle Iron Age.

P9 Sherd from everted jar, from vessel larger and thicker than **P8**. Fabric D. Comments for dating as **P8**.

P10 Sherd from girth of vessel in Fabric D, gabbro with added temper. Decorated with geometric pattern, deeply incised with narrow point on wet clay; no burnish. The design is comparable to those of South Western Decorated ware, but these vessels are always decorated leather hard and usually burnished. Fabric suggests an earlier date. Possible parallel in vessel now known to be Middle Iron Age from Halangy Porth in the Isles of Scilly (Ashbee 1983, fig 9; Quinnell 1994, 14). A few pieces at Bodrifty have decoration of similar type (Dudley 1957, fig 9, Nos 26, 28-9) and there may be a piece from Carn Euny (S Elsdon in Christie 1978, 397).

P11 (Not illustrated) Out-turned rim, Fabric E; vessel wall only 4 mm thick on neck. Too eroded for diameter to be established. There is also a fragment of a similar but much thicker rim in the same fabric. There is insufficient of these rims for a detailed discussion of comparanda to be useful. It should be stressed that Fabric E has not so far been recognised from other Cornish collections.

The 30 sherds of prehistoric fabrics retrieved from [227], together with possible fragments of clay loom weights, belong in date to a range perhaps confined to the Early Iron Age, perhaps starting in the Late Bronze Age; they may date to somewhere in the 8th to 5th centuries BC. They do not appear to extend into the Middle/Late Iron Age and there is no other material dating before the Late Medieval period. It may be suggested with confidence that the prehistoric assemblage comes from a discrete context, perhaps a midden behind a rampart. Given the rarity of closed assemblages of Early Iron Age date the importance of investigating the remainder of the area in which other sherds may have survived must be stressed.

Eastern Cliff Exposure SMM92/15-16

P12 (Not illustrated) Small rim sherd from bowl with simple flat-topped out turn, gabbro Fabric C. Carlyon (1995) suggests that such bowls are 3rd century AD but finds from sites such as Castle Gotha (Saunders and Harris 1982, fig 15, No 63) suggest the form was present from the 2nd century. For how long such bowl forms were manufactured and/or used in the 4th and indeed the 5th centuries is still undecided (Quinnell forthcoming c). This appears to be the only typologically Roman piece identified from Eastern Cliff Exposure contexts. The other seven non-medieval sherds were of Fabrics A and D, probably of Late Bronze Age to Early Iron Age date.

Summit SMM97 [1]

P13 Rim of bowl with conical flange in Gabbroic Fabric C; interior black coating and burnish survive, with soot on exterior; long (accidental?) slash across interior. Bowls with this rim type (Carlyon 1995, Form 39) appear to be the latest to develop in Roman Cornwall and are generally considered to date from the late 3rd and the 4th centuries AD, although there is no reason why their manufacture and use should not have continued in to the 5th and even the 6th centuries (Quinnell forthcoming c).

P14A Rim from vessel of simple upright shape in hard Granitic Admixture Fabric B. Rim flat-topped with slight external expansion and trace of incised diagonal decoration beneath on the exterior. The general form both of vessel and decoration is better paralleled in Middle Bronze Age Trevisker assemblages than in those of later date but the fabric has not been recognised in any of these assemblages. It is probably safer, on our present knowledge, to suggest that this simple form belongs in the Late Bronze Age to Early Iron Age phase indicated by the collection from [235] but the possibility of an earlier date can not be excluded.

P14B Base of vessel in similar fabric to **P14A** and quite possibly part of the same vessel. Slightly expanded foot, with broad incised line that may have formed part of a cross on the base.

The group from the Summit [1] in 1997 appears to be of very mixed date, including the post-Roman amphorae imports discussed elsewhere. It may be noted that conditions for preservation were extremely good. Usually granitic bedrock results in a general softening of ceramics, but here the various fabrics survived in a fresh and hard state.

General discussion

The importance of the Area A material for studies of the Cornish LBA/EIA ceramic sequence can hardly be overstressed. It has an unusually wide fabric range, is of a period in which ceramic finds are so far rare, and has a unique imported sherd. This small collection contained two fabrics previously not known in Cornwall, glauconitic sandy ware from Wessex (Fabric F), and micaceous sandy oxidised ware (Fabric E) which probably is of local origin but just possibly could be a Breton import. Thin-sectioning of the wide fabric range will be necessary for further understanding of the ceramics and should be allowed for in any future project on the Mount which may produce a larger collection for study. Chronologically the limited sample available suggests that Area A was not occupied during the Later and Middle Iron Age. The presence of P1 in Wiltshire glauconitic sandy ware of Early Iron Age date, so far unique in the South West peninsula, indicates that the Mount had wide, if occasional exchange contacts from as early as perhaps the 6th century BC.

Absent are South Western Decorated forms which would generally be thought to be contemporary with any traditions relating to *Ictis*. However the presence on the summit of Roman and later material, as well as LBA/EIA, shows how different areas of the Mount may have been occupied at different periods. There is a general tradition, based on the period when the classical *Ictis* references are thought to apply, of linking these to the Later Iron Age for which cross-channel trade is best evidenced at Hengistbury Head (Cunliffe 1987, 339-345). It must be stressed that in ceramic terms the evidence for continental contact at Hengistbury all belongs to the 1st century BC and may only be one aspect of contact and exchange which continued for a much longer time. The data from Mount Batten (Cunliffe 1988) certainly suggests continental contact in regard to metalwork throughout the 1st millennium BC; while the ceramic sequence stretches right through the 1st millennium BC and into the Roman period only a single possible prehistoric ceramic import from France has been identified. We may be seeing the emergence at St Michael's Mount of a situation similar to that at Mount Batten, with P1 the precursor of exchange contacts over a long period in the 1st millennium BC.

The dating of the ceramics is important for the possible promontory fort. If [227] is correctly identified as from a deposit behind an enclosing line, and [235] from the infill of a hut platform within it, then any fort should have been in existence from the earlier 1st millennium BC. Evidence from Maen Castle and Trevelgue supports this early use of promontory forts but it is worth stressing because there is still a lingering tradition in the literature that promontory forts are 'late', a hangover from the times they were seen as a consequence of the impact of refugees from Caesar's Gaul.

2.3.4 Fragment of plano-convex copper ingot, *by Peter Herring*

A small lump of metal was recovered from context [235], the fill layer within the suggested round house behind defensive lines on the south side of the Mount. It was associated in that context with a saddle quern and thirteen pottery sherds which Henrietta Quinnell's analysis place in the earlier part of the 1st millennium BC (see above, 2.3.3).

The object was broken - or more likely deliberately reduced in size - in antiquity and has break/cut scars on three of its four sides. It appears to be a chip from the end of a plano-convex ingot; its top being flat and its bottom convex. It is now 43mm by 36mm and up to 17mm thick, but unfortunately the breaks make it impossible to determine any of the piece's original dimensions. If it was symmetrical, minimum dimensions would be approximately 70mm by 65, but it could easily have been significantly larger, and thicker.

A small piece of the metal, taken from one side of the lump was polished and analysed at the laboratories in the Camborne School of Mines by Technician Tony Ball. The dark metal phase of the core comprised 96.5% copper and just over 2% tin with a smaller amount of lead (0.2%). Much larger quantities of lead, tin, phosphorous and chlorine were recorded in the light phase of the metal and at the contact (see Appendix 5).

Between 20 and 30 'pieces of copper' were found within a 'small square hut' just '150 yards outside wall of ancient promontory fort' at Kenidjack, in St Just-in-Penwith in the 19th century (Hencken 1932, 87-9), and 'one piece of copper ingot', probably plano-convex and thus of apparently Later Bronze Age date (perhaps of the Ewart Park phase of metalwork), was found on the promontory at Mount Batten (Cunliffe 1988, 56-8). Three pieces of a copper plano-convex ingot, probably originally '5 to 8in. diameter' were found in Gillan Creek on the south

side of the Helford River in southern Cornwall in 1935 apparently in association with a 'socketed axe-head [which] seems to be a typical southern Late Bronze Age example'. One piece was subjected to chemical and spectrographic analysis and was shown to be very pure copper (98.74%), with principal impurities being oxygen and sulphur (Tylecote 1967, 110-111).

The ingot fragment not only supports Henrietta Quinnell's early 1st millennium dating of the pottery assemblage from context [235], but also introduces the likelihood that the occupants of the round house were in some way involved in the use or trading of refined metal.

2.3.5 Early medieval ceramics and pebbles (*c*400-1066), *by Carl Thorpe*

It has been suggested that St Michael's Mount may have been a Post-Roman (5th-6th centuries AD) secular power centre similar to that at Tintagel, one of a number of citadels visited in irregular rotation by a fairly mobile court (Thomas 1988). The subject is summarised in Herring 1993a. Until the trenching work at the summit, no direct evidence for such a centre had been found. Many scholars have also proposed a pre-Norman Christian settlement (see Herring 1993a for a review of the evidence). Until the projects reported here, scant evidence for this had been found.

The sewer watching brief produced 21 sherds of 'grass-marked' pottery, characteristic Cornish domestic pottery (mostly cooking pots) from the period between the 7th to 12th centuries AD (Thomas 1993). Unfortunately no diagnostic sherds were present to determine which form or style of pottery these sherds represent, and thus the date cannot be refined further than the Early Medieval period. These sherds are concentrated in contexts [212] and [215] on the lower eastern slopes.

The presence of nine water-rounded quartz pebbles along with Early Medieval sherds in the fill of the later medieval grave [215] may be important as they have often been found in close proximity to both Early and Later Medieval graves elsewhere in western Britain. They may be used to suggest at least a possibility that the grave was cut within a substantially earlier burial ground. On the Isle of Man white pebbles were found at Ballavarkish and Ballaquinney and in many other early cemeteries (Kermode 1968). The excavation dated the deposition of pebbles in the graves from the 7th century to well into the medieval period. White pebbles were also found at Church Island, Valentia harbour (Co Kerry, Ireland) associated with burials dated *c*650-750 AD in 1955-56 (Pochin-Mold 1976, 21-23), and others occur at holy wells in Wales, where they were used as tokens of prayer to the genius of the spring. Examples are documented from Ffynnan Wenfaen (Anglesey) and Llandegla, Denbigh (Jones 1954, 96). The excavations at Whithorn (Galloway) in 1984-87 produced them in medieval graves (Hill 1988, 21).

It is most probable that the pebbles, also found in excavations at Tintagel Churchyard, Cornwall, in association with Early Medieval graves (Nowakowski 1992) were used as tokens for prayers for the dead. 'This may derive from early monastic practices in Egypt and Syria during the 4th and 5th centuries AD (Crowe 1982). What is clear is that they are usually found in areas associated with the Celtic church in Britain. They also derive from areas where traditions of the church were monastic rather than parochial' (Crowe, in Nowakowski 1992).

2.3.6 Medieval ceramics (1066-*c*1400), *by Carl Thorpe, with comments from John Allan and notes on find locations by Peter Herring.*

Intensive activity on the Mount has left much medieval artefactual evidence, 103 dateable

objects being found within the scope of this project, and it is possible that some of the undateable objects, roofing slates and bones etc, are also of this period. The majority of finds are ceramic, but there is also a little fine metalwork and coins (see **2.3.13**).

The study of Cornish medieval pottery is still at an early stage. Most published sites are rural and lack stratified sequences, their dating being in relation to broad regional traditions. Close dating from a few rimsherds alone is not possible as coarseware forms can have a long duration; for example some rim forms from Exeter continued unchanged from the late 10th century to the early 14th century (Allan 1984).

John Allan draws together all Cornish medieval hand-made thin-walled unglazed wares into one group, named 'A' wares in John's comments in the finds catalogue (Appendix 2). These date from *c*1200 to 1450/1500 with the jugs probably post-dating 1250. Carl Thorpe has followed Cathy O'Mahoney in separating these wares into Cornish Coarsewares, Bunnings Park/Stuffle Ware, and St Germans Ware.

Lostwithiel and St Germans are well-documented production centres but only one pottery kiln has been excavated in Cornwall (St Germans; see below). Fabric analysis has identified a third type of pottery which is distinct from these, named 'Bunnings Park / Stuffle Ware' after the site where it was first recognised, though it is thought that it too may have been manufactured in the Lostwithiel area.

Cornish Medieval Coarsewares

Hand-made, thin-walled vessels, with a micaceous fabric, often with rounded quartz inclusions, sometimes with other crushed rock filler (eg slate), sometimes wheel-finished, and hard-fired.

Vessels represented are mostly cooking pots (undecorated) or occasionally jugs. The centre of production is not known, but most probably based on an area where granitic clays were easily obtainable. They are long-lived forms, unchanging practical designs, from the late 12th century, to the end of the 14th century (Allan 1984; O'Mahoney 1989a; b; 1994).

Cornish Medieval Coarseware, Bunnings Park / Stuffle Ware

This pottery is hand made, often wheel-finished, thin-walled, micaceous fabric with common inclusions of rounded quartz grains, hard-fired with a pink-buff exterior and a grey core. This ware was probably fabricated in the Lostwithiel area, though actual kiln sites are not known. (It is possible that it was clamp-fired without purpose-built kilns.)

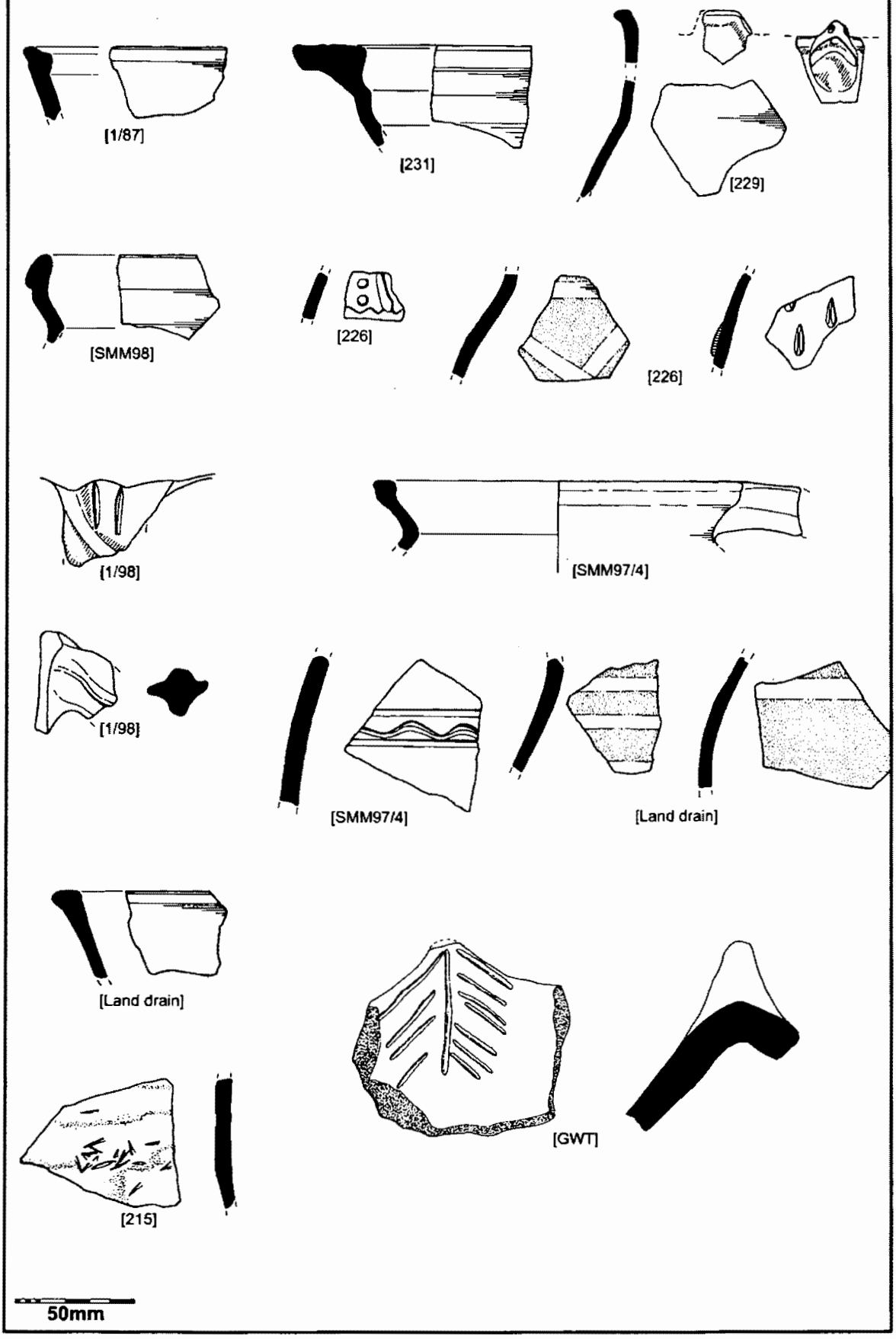
Dating from the 13th and 14th centuries, forms include cooking pots and jugs. Bowls and rarely cisterns came into use at the end of the 14th, or start of the 15th centuries; all with sagging bases. Decoration of feint incised lines, applied thumbed strips, and stabbed handles is infrequent (O'Mahoney 1989 a and b, and 1994).

Some 36 sherds have been recognised in this collection including rimsherds, and a stab decorated handle, from cooking pots and jugs; none of the more exotic forms being present.

Cornish Medieval Coarseware, St Germans Ware

Wheel-thrown, thin-walled pottery with a micaceous fabric having a sandy/gritty quartz temper and black mica plates as inclusions. Hard fired with reduced buff-grey to dark grey exterior and an almost black core. Dating from the 13th to 15th centuries, forms are mostly cooking pots and jugs with sagging bases; bowls and cisterns being introduced during the 15th

Fig 13 Selected medieval pot sherds and ridge tile. Numbers refer to contexts (see Appendices 2,8,9 and 10). Drawings by Carl Thorpe.



century. Decoration is often of simple white slip painted geometric motifs, stab or slashed handles, and occasional incised line decoration.

A kiln site was excavated at St Germans in east Cornwall in 1957 (Minter 1957). Its widespread distribution through Devon and Cornwall (Broady in Fairclough 1976), however, perhaps indicates a large number of kiln sites so far unlocated. Fabric analysis indicates a clay with a source in one of the granitic masses of either Dartmoor or Bodmin Moor.

Nine sherds of this ware were recovered, most too small to recognise vessel form, though a single rimsherd of a cooking vessel was found.

Devon Medieval Coarsewares

Possibly hand-made, certainly wheel-finished pottery; thin-walled non-micaceous fabric with common inclusions of rounded quartz grains, often well fired with a pink-buff exterior and a grey core. This was most likely manufactured in north Devon at Barnstaple where a kiln was excavated at Tuly Street in 1985. Documentary evidence suggests further production sites in Bideford but as yet no kilns have been found there (Allan 1994; O'Mahoney 1989a).

Dating from the 13th and 14th centuries, jugs are the most numerous vessel type found on Cornish sites, eg at Tintagel (O'Mahoney 1989a), but cooking pots and cisterns are also known, all with sagging bases. Decoration includes incised wavy lines, applied finger impressed decorative strips, rare comb impressions, slashed and stabbed handles. Jugs are often glazed.

A single sherd of this ware was found on the Mount, context [16].

Southern English Medieval Sandy Ware (Exeter Fabric 44)

Fine wheel-turned pottery, thin-walled, hard fired, off-white to buff-coloured sand-tempered fabric, sometimes micaceous, with occasional red hematite inclusions. The centre of production is not known; Bristol is most likely, though Southampton is possible. Jugs with collared rims are the most common forms, and decoration is of mottled green glaze, with applied clay scales on the body being characteristic. Examples of this pottery occur in mid-13th century contexts at both Exeter and Southampton (Allan 1984; Platt and Coleman Smith 1975).

A single sherd of this ware was recovered, from context [226], having scale decoration and mottled green glaze.

Locations of findspots

With the exception of a single sherd of Bunnings Park/Stuffle ware from above a pit south of the gateway, in Area C [172], all the medieval sherds came from Area B. None came from the village (Area D) although eight sherds of Cornish Medieval Coarseware came from the landscaping layers at the north end of Area B which are thought to have originated in the village area, and thus suggest that there was activity in that area in the early post-Conquest period. The remainder of pottery finds of this period come from the middle eastern slopes although all were in either topsoil or residual contexts and may have originated either in the village or elsewhere on the Mount, possibly even the summit.

2.3.7 Late Medieval ceramics (*c*1400-*c*1550), *by Carl Thorpe, with comments from John Allan and notes on find locations by Peter Herring*

Activity on the Mount in this period (see Herring 1993a) is well represented in the artefacts

recovered in this project, some 69 in total being found, mostly pottery, but also ridge tiles, glass, and floor tiles.

Again, knowledge of Late Medieval Cornish pottery is limited. Apart from the previously-mentioned kiln at St Germans (which continued production until *c*1500) no kilns have been excavated, though documentation indicates the presence of potters at Lostwithiel (Douch 1969), and small-scale excavations uncovered a large number of pottery wasters there (Miles 1976; 1979).

John Allan draws together all thin-walled wheel-thrown transitional medieval/post-medieval Cornish wares into one group, recorded in the finds catalogue (Appendix 2) as 'B' ware. These date from 1400 to 1550 or a little later; John Allan placed an early plant pot of 'B' ware as 17th or 18th century [1/137]. Carl Thorpe has followed Cathy O'Mahoney in separating this broad group into Cornish Coarsewares, Lostwithiel, and St Germans Wares.

Cornish Late Medieval Coarsewares

Wheel-thrown vessels with a micaceous fabric, often with rounded quartz inclusions, sometimes with other crushed rock filler such as slate; hard-fired. Centres of production are not known, but could be various, anywhere where granitic derived clays are easily obtainable.

Long-lived forms, such as cooking pots, are represented along with bowls, jugs, and occasional cisterns, all with sagging bases, sometimes thumbed though markedly less than earlier forms. Decoration is rare, but may include occasional stabbed rod handles or painted white slip bands (O'Mahoney 1994).

Six sherds of this material were found in this project; none was sufficiently diagnostic to determine vessel form.

Cornish Late Medieval Coarseware, Lostwithiel Ware

Wheel-thrown, thick-walled pottery, similar to *Bunnings Park / Stuffle Ware* fabric but significant differences make it distinct. Generally has large flakes of white mica, more angular white (feldspar) inclusions visible in the fractures, and lacks the small black platy inclusions and soft glistening reddish-brown patches found in Stuffle type ware. Pink to grey-brown exterior with a grey core; hard-fired. The similarities in fabric suggest that *Lostwithiel Ware* replaces *Bunnings Park / Stuffle Ware* in the 15th century (O'Mahoney 1989a; b; 1994).

Though called Lostwithiel Ware (O'Mahoney 1989a; b), no kilns have been found. Small-scale excavations within the town, however, uncovered a large number of pottery wasters in this fabric (Miles 1976; 1979). Firm documentary evidence for potting in Lostwithiel only exists for the 15th century onwards, continuing into the 19th century (Douch 1969).

Forms include cooking pots, cisterns, lid-seated jugs, with rod handles, two-handled jars, and bowls/pancheons with complicated rims and shoulder carinations. Bases have more rounded, gently sloping angles (O'Mahoney 1989a and b). Decoration includes stabbed rod handles, horizontal painted bands of white slip, and lines of white slip forming simple geometric patterns. Incised lines, and applied thumb-pressed strips are also present, but rarer.

Ten sherds of this ware including rimsherds, and decorated sherds of jugs, cooking pots, and possibly bowls, were recovered during this project.

Cornish Late Medieval Coarseware, St Germans Ware

This is a continuation of the medieval production, with the fabric as described above. The vessels are all wheel-thrown, but now much thicker-walled. Colours are generally dark brown to grey, sometimes almost black and forms are similar to those for *Lostwithiel Ware* as are decoration styles. Excavation of a kiln at St Germans showed the kiln sealed by layers containing 16th century material, indicating a floruit of *c*1500 (Miles 1976; Fairclough 1979).

Eight sherds including 1 white-line-painted jug rimsherd were recovered.

Devon Late Medieval Gravel -Tempered Ware

Wheel-thrown, fairly thick-walled, non-micaceous fabric with quartz gravel added as filler. Well-fired, dark pink-buff exterior and a grey core. Probable site of production, north Devon, possibly Barnstaple or Okehampton (Allan 1984; 1994). Forms similar to those of Late Cornish Wares. A single bowl rim was found, of *c*1500 form context [1/160].

Late Medieval Glazed Red Earthenware (GRE)

A single sherd of this wheel-thrown ware, with non-micaceous fabric, was recovered context [1]. Origin not known, form transitional between medieval and post-medieval wares, with mottled red-brown glaze covering both interior and exterior surfaces.

East Devon, South Somerset Late Medieval Coarseware (Exeter Fabric 43)

Wheel-thrown, fairly thin-walled, slightly micaceous clay fabric, with fine sand, coarse quartz, chert and flint added. Well-fired, pink red colour. Probable site of production in the Otter Valley, east of Exeter, though fabric is similar to the South Somerset Wares. This ware occurs at Exeter in late 14th and 15th century contexts.

Only jugs are found in this fabric; a tall elongated form with pulled lip, thumbed base and flat handles. These vessels are often heavily decorated; glazed on upper halves and unglazed below, the glaze being light to dark green, or red brown, often mottled. Metallic stripes applied vertically are the most common decoration, but brushed white slip lines, applied clay strips, roller stamped, incised, grooved, and unpressed comb decoration also occurs. Faces of clay, applied to the front, or on the rim have also been found (Allan 1984; and pers comm).

Twenty-six sherds of this ware were found, all from a single vessel context [229], a globular baggy form of jug with pulled lip and thumbed base, and an applied moulded face with eyes and a sad mouth on the rim. It was found towards the southern end of Area B, within 50m of the pillbox in an area which has seen little post-medieval disturbance.

North Devon Late Medieval Calcareous Ware

Wheel-thrown, fairly thick-walled, gravel-free fabric with the addition of much fine calcareous filler (crushed shell?) which commonly leaches out leaving a pitted surface. This ware first occurs in Exeter at the end of the 15th century, but its height of occurrence is the mid-16th century. Barnstaple and Bideford are the probable centres of production.

Only jars are known in this fabric, with an interior, often patchy green or brown glaze (Allan 1984).

A single rimsherd of this ware was recovered from context [24], in the landscaping layers probably derived from the village area.

North Devon Medieval Chert-tempered Coarseware

John Allan identified a single sherd of this ware during his inspection of the sewer material [1/85].

Locations of findspots

Over 60% of the Later Medieval pottery artefacts were found either within the village (Area D) or in the northern part of Area B where material probably derived from the village had been dumped. The remainder were found in the southern part of Area B, on the Mount's south-eastern slopes, and close to the so-called 'banquetting house' [221].

2.3.8 Post-Medieval ceramics (mid-16th to 18th centuries), *by Carl Thorpe with comments from John Allan and notes on find locations by Peter Herring*

Intense activity is reflected in the 248 artefacts from this period recovered during this project.

Post-Medieval Glazed Red Earthenware (GRE)

This is by far the largest group in the whole assemblage, and it (along with specific GRE groups that follow) dominates the post-medieval pottery on the Mount. Glazed Red Earthenwares (GRE) are found in such quantities and with so much variety that although no kiln sites have been found, it is certain that there was more than one source, most likely in Devon, Somerset, and perhaps Bristol (Jennings 1981; Allan 1984).

It seems that GRE was produced from sometime in the first half of the 16th century and continuing throughout the 17th and 18th centuries with little evident change in fabrics (Allan 1984).

The lead glaze is clear, taking most colour from the fabric; however, green (copper) or red (iron) glazes also occur. Flatwares, such as plates dishes and bowls, are always completely glazed on the interior; exteriors can vary from completely glazed to wholly unglazed, and is usually patchy. Closed wares, such as jugs, jars and cisterns, vary from careful, overall glazing to exterior glazing with random patches on the interior. Decoration is rare.

Many of the forms have a long survival with little or no change, and much of this pottery is only dateable in association with other artefacts, eg clay pipes. Forms include flatwares such as plates, dishes, and bowls, with and without handles, and pancheons while hollow wares comprise mainly storage jars, pipkins and jugs. Chafing dishes, mugs, drinking cups, standing costrels and cisterns are also found (Jennings 1981; Allan 1984).

Some 81 sherds were found, including rim, handle and basal sherds, of various forms.

North Devon Post-Medieval Glazed Red Earthenware (GRE)

Wheel-thrown, often thick-walled pottery. Fine matrix with almost no sand; usually fired orange with a grey core. The earliest known examples of this material are late 15th century, with the market in Exeter growing steadily until a rapid expansion in the late 17th century or early 18th century saw this ware comprising nearly 23% of the total in Exeter, declining in the later 18th and 19th centuries due to competition from the Bristol and Staffordshire potteries (Allan 1984).

The main centres of pottery production were at Barnstaple and perhaps Bideford, though there were no doubt other kiln sites. Forms are numerous and varied, similar to those listed for *Post-Medieval GRE;* a common feature of all forms is that they are flat bottomed.

Decoration is reduced green or brown glaze, slip coated, often with Sgraffito patterns (Grant 1983; Allan 1984).

Seven sherds found on this project can be definitely identified as this fabric, though it is most likely that many of the sherds identified as Post-Medieval GRE also belong in this category.

John Allan also noted numerous sherds of unglazed North Devon gravel-tempered ware, post-1500, but some into 17th and 18th century.

North Devon Post-medieval Gravel-Tempered Glazed Red Earthenware (GRE): Barnstaple Ware
Wheel-thrown ware; similar to fabrics found in *North Devon Post-Medieval Glazed Red Earthenware*. It has, however, abundant angular quartz and quartzite filler, often with large black or white mica flakes. Dates from the 17th century, with large numbers being produced in the 18th and 19th centuries. Forms include bowls, tripod skillets, chafing dishes, large crocks, and handled cooking pots; all heavy duty kitchenware. Decoration is restricted to overall green or brown glaze. The main centre of production was around North Devon and Barnstaple (Fairclough 1979; Grant 1983; Allan 1984).

Eighteen sherds of this material was recovered during this project.

Devon Post-medieval Gravel-Tempered Glazed Red Earthenware (GRE)
Possibly the same as *North Devon Post-medieval Gravel Tempered GRE* although the fabric was not as coarse-grained. Fewer inclusions, and rare mica, indicate an origin in Devon as opposed to Cornwall; Somerset wares are sandier, and much redder in colour.

Three sherds were found.

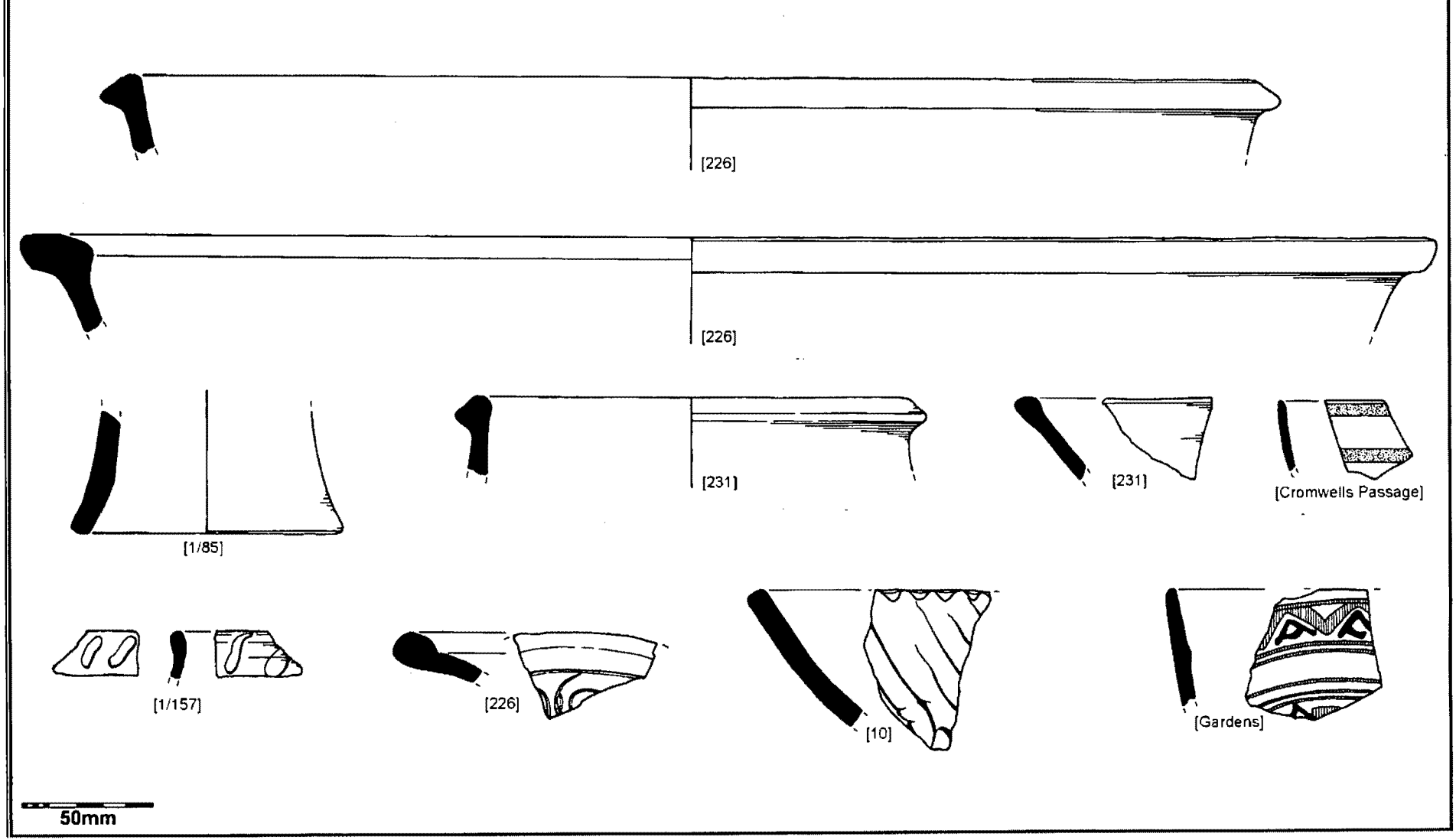
Cornish Post-Medieval Coarseware, Lostwithiel Ware
Wheel-thrown fabrics identical to those in *Cornish Late Medieval Coarseware, Lostwithiel Ware*. The only difference is that forms change to those found in *Post-Medieval GRE*. Bowls are common, though there are some closed forms. Decoration includes total glazing (thick dark green) on the interior, patchy on the exterior, with painted white slip decoration sometimes occurring on rims, and exteriors (Fairclough 1979; O'Mahoney 1989b; 1994).

Five sherds of this pottery were found.

Post-Medieval GRE Decorated Slipwares
These are all wheel-thrown openwares; bowls, dishes and plates. All the above Post-Medieval fabrics (not Gravel-Tempered) are represented, but it is often difficult to assign production centres as the fabrics and decoration styles are very similar. Most of those found in Cornwall originate in Devon, Somerset or Bristol. Decoration is usually overall glaze (often green) with trail slipped, or piped decoration, often white slipped. Scratched incision patterns prior to firing (Sgraffito Ware) are common, often complex patterns combining both methods are utilised. The 17th and 18th centuries mark the peak use of these wares (Grant 1983; Allan 1984; Coleman Smith 1988; Barker 1993). John Allan, while reviewing this collection, put open form North Devon Sgraffito as *c*1630-1710 eg [203].

Three sherds of this pottery were recovered, however it is possible that these belong to the Somerset (Donyatt Wares) described below.

Fig 14 Selected medieval and post-medieval pot sherds. Numbers refer to contexts (see Appendices 2 and 10). Drawings by Carl Thorpe.



Post-Medieval Glazed Red Earthenware, Donyatt Ware

These wheel-thrown wares, have a fine hard matrix with a smooth sandy texture with frequent iron oxide (red-brown in colour) and isolated fossil limestone inclusions.

The earliest known production centred around Donyatt in south-west Somerset, at the edge of the Forest of Neroche in the Blackdown Hills, in the 13th century. Main expansion periods were in the 13th and 17th/18th centuries, distribution in the latter period, being widespread, ranging from the South-West peninsula, to London and the north-east, being found in Newcastle-upon-Tyne (Coleman-Smith and Pearson 1988).

Forms are numerous, and include dishes, jugs, porringers, mugs, tankards, bowls, dishes, cups, jars, lids, cisterns, chamber pots, and pancheons. Decoration is white slip trailed and coated with Sgraffito and white slip trailed motifs. External and internal surfaces are covered with clear glaze stained with copper flecks, or manganese and iron. Within the 18th century complex designs of red, brown, and white trailed and feathered slip were developed (Coleman-Smith and Pearson 1988; Barker 1993).

Fifteen sherds of this material were recognised in this collection, all dating from the 17th and 18th centuries.

Post-Medieval Yellow-Glazed Red Earthenware, Bristol/Staffordshire Ware

Fine buff to cream fabric, with no obvious inclusions, produced in Staffordshire around Burslam and Hanley (Stoke-on-Trent), starting in the mid-17th century and reaching a height in the mid-18th century. Pottery of similar almost indistinguishable fabric was manufactured in Bristol, but appears to be entirely of closed forms, and was most probably made by potters originating from Staffordshire working in the city (Allan 1984). The vast bulk of traded wares were flatwares, especially press moulded plates coming from Staffordshire (Jennings 1981; Allan 1984; Barker 1993).

John Allan suggested that most of the press-moulded ware was manufactured in Bristol, not Staffordshire; he called it Bristol Staffordshire, and he dated most press-moulded ware 1720-1800. Wheel-thrown Bristol Staffordshire slipware he dated 1670-1770 eg [229] and Yellow Slip Bristol Staffs with all over iron glaze, *c*1690-1740 [51]. Note that there is uncertainty about the production site of the press-moulded wares; Jennings (1981) doubts that they were actually made in Bristol but acknowledges that they were transported in large numbers from this port.

Forms include plates, often press-moulded to give a 'pie-crust' rim, and small numbers of possets, mugs, cups, and chamberpots. Decoration is usually white trail slip over a dark brown slip background, often marbled or combed and feathered into intricate patterns. Yellow-glazed, though on flatwares restricted to the interior surfaces only (Allan 1984; Barker 1993; and Jennings 1981)

Twelve sherds of this material was identified in this collection.

Post-Medieval Bristol / Somerset, Yellow Glazed Slipware

Similar to *Bristol/Staffordshire Ware* but mostly of closed forms. Fine buff or cream fabric, glazed yellow, with dark brown or black trail slipped decoration. Forms include mugs and cups; those found in Exeter dating from 1730-1750 (Allan 1984, fig 121).

Five sherds of this material were identified.

Somerset or Devon Coarse Sandy Ware

Wheel-thrown ware with a coarse sandy fabric and occasional iron ore fragments. Large quantities of this ware have been excavated in Exeter, concentrated in contexts dating from 1500 - 1650. An origin from within that city has been suggested, though no kilns have been found (Allan 1984). Beyond Exeter, rare examples have been found at Okehampton Castle, Newton Abbot and Plymouth, but none within excavations in Somerset, though similar fabrics and forms were found at Donyatt in South Somerset (*ibid*). Both open and closed forms are found, mostly bowls, but also jugs and storage jars. Decorated with dark green glaze, though occasionally orange, and brown; with rare incised lines.

Two sherds in this collection [1/91] could possibly be in this fabric.

Post-Medieval Salt-glazed Stoneware (Westerwald Ware)

Westerwald is an area to the east of the Rhine, Germany. A very distinctive hard-fired stoneware, light grey in colour and decorated with cobalt blue. Imported in large quantities from the 17th century onwards, reaching a peak in the 18th century. Forms are mostly jugs and tankards. Three main types of decoration are present, applied stamped pads, combed stems with leaves and flowers, and heraldic medallions, with horizontal bands of cobalt blue colour, with manganese purple being introduced in the late 17th century (Jennings 1981).

One basal sherd of a tankard was recovered which John Allan dated as from the first quarter of the 18th century.

Post-Medieval Saltglazed Stoneware (Frechen Ware)

Frechen is an area west of Cologne, Germany. A reduced grey stoneware, the exterior covered with a saltglaze, usually brown speckled 'Tiger' Ware. The typical form is that of a Bellarmine jug often decorated with 'masks' or heraldic medallions. Height of production and importation into Britain was during the 17th century, being replaced by other stonewares in the late 18th century (Jennings 1981; Allan 1984).

Three sherds of this pottery, including distinctive handle sherds were found, one in the pit [217] to the south of the so-called 'banquetting house'.

Post-Medieval Saltglazed Stoneware (Bristol Ware)

Stoneware production only began in the late 17th century at Bristol, and was just a small component of the Bristol/Staffordshire Potteries, due to competition from more popular foreign imports. Fabric is fine light grey, with no inclusions, and a mid-brown saltglaze on the exterior. Forms are mostly jugs and tankards (Allan 1984).

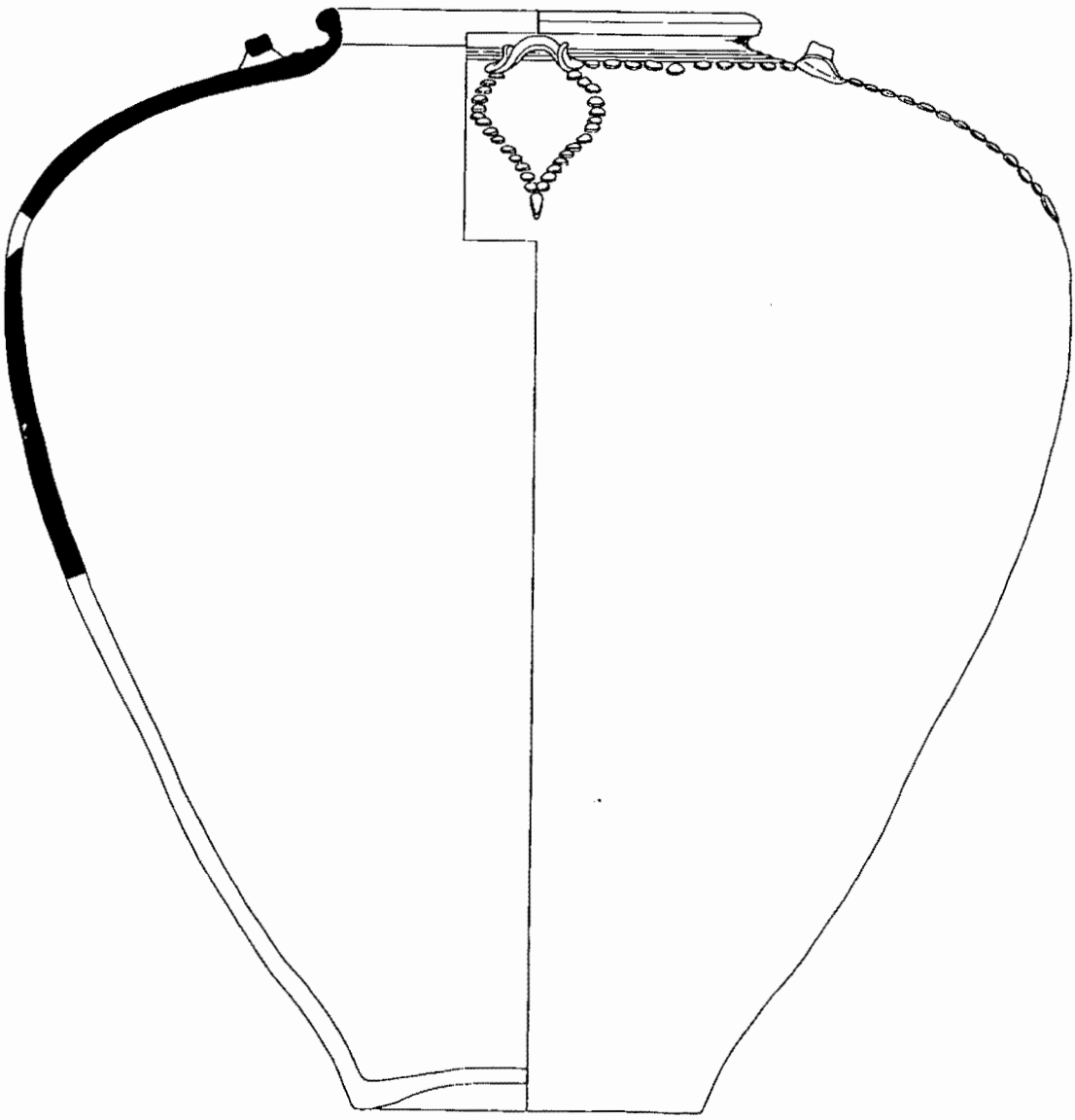
Two possible sherds of this fabric were identified [21, 231], and placed by John Allan to after 1830.

Post-Medieval Ash-glazed Martabani stoneware

During this project 18 sherds of an unusual stoneware vessel were recovered from context [138]; they are not the usual recognisable English or German wares and identification is tentative (but supported by John Allan).

The walls of the vessel are thick, averaging 10mm. Fabric is dark grey-purple stoneware, with occasional white inclusions and glazed with a dark brown-black glaze, in places crinkly" in appearance. Form is of a large rounded rimmed storage jar with some applied decoration, and small looped handles on the shoulder/neck, below the rim.

Fig 15 Burmese Martabani vessel reused as a ***train*** *oil collection jar (see Section 2.3.8). Drawing by Carl Thorpe.*



The closest comparison in form and fabric with these sherds is that of Martabani stoneware from Burma (Hurst *et al* 1986). Rare sherds have been found in excavations at Plymouth (Fairclough 1979). John Allan mentioned another, unpublished, having been found in Plymouth Sound (pers comm). It is believed that they were used as water storage jars on sailing ships, especially Portuguese and Spanish vessels. Dates from Plymouth and Southampton contexts are 17th century (Fairclough 1979). A sherd was found in a 16th century context at Southampton (Platt and Coleman-Smith 1975). The vessel had been reused as a train oil collection jar set into a cobbled floor [110].

Another Martabani sherd was collected from context [231].

Post-medieval Tin-glazed Earthenware: Delftwares

Dutch tin-glazed vessels form 70% of post-medieval earthenwares imported from the Low Countries to Exeter (Allan 1984). Starting in the late 17th century, importation reached a peak at the start of the 18th century, declining until none was imported after 1740, due to competition from Delftwares made in London (Allan 1984). By the mid-18th century centres had also developed at Bristol and Liverpool. It was superseded by Modern White Glazed Stonewares and White Glazed Earthenwares, 'Creamwares,' at the start of the 19th century (Jennings 1981; Allan 1984).

A fine comminuted pale cream to red-pink clay fabric with a white tin glaze. Decorated with hand painted blue glazes, often in imitation of Chinese designs. Forms include plates, bowls, porrigers and ointment jars.

Several Delftware sherds were recovered [107, 146, 226, 231, 232] but all were too small to determine whether they were of Dutch or English origin.

North Holland Slipwares

Wheel-thrown, hard-fired, red-brown, sandy fabric with a rich glossy light brown glaze. Centre of production is not known, but it is found in large quantities in the Dutch province of Noord Holland.

Forms include dishes, bowls, cups, jugs and pipkins. Decoration is characterised by complex patterns of thickly-trailed, pale yellow slip (Hurst *et al* 1986). At Exeter this ware is confined to contexts dating from 1620 to 1720 (Allan 1984).

A single sherd of this ware, a jug rimsherd was found [1/157].

Normandy Stoneware

Main centre of production was at Ger in Manche, east of Mortain, close to Bayeux. First found from the 14th century at Caen Castle, but did not reach England until the end of the 16th century, becoming common in the 17th and 18th centuries. Sherds occur in contexts dating from 1700 in Exeter, and have been found in similar contexts at both Southampton and Plymouth (Allan 1984).

It is a purple-brown stoneware fabric, but not often fully fused so that inclusions are visible. Usually dark brown glazed, though sometimes unglazed. Forms include curved and straight-sided bowls with flanged rims, tall wide-necked jars with flanged rims, narrow-necked jars, and squat jugs. Usually undecorated (Hurst *et al* 1986).

Two sherds of this ware were identified [119 and 231].

Nottingham Saltglazed Stonewares

Stonewares were produced in Nottingham from 1690, the height of production being in the 18th century, before declining in the 19th.

Fabric is grey, with a lustrous brown salt glaze. Forms include mugs, dishes, bowls, and jugs. They are unusual in that they were decorated with lathe-turned bands, and also bands of mechanically cut facets resembling cut glass. Vessels are often inscribed and dated (Jennings 1981).

A single sherd of this ware was found [18].

English Grey Stoneware with White Engobe
White dipped stoneware was made in Staffordshire from *c*1710 and production continued until the 1760s.

Pale off-white, to buff grey fabric with crazed white glaze. Forms, mostly mugs, and tankards, with a band of iron slip on the top of the rim (Jennings 1981).

Two sherds of this ware were found within contexts [49 and 51].

Other post-medieval wares
John Allan in his review of the post-medieval material also noted sherds in the following wares:
Possible Saintonge ware, green-glazed, globular, pale grey fabric, post-medieval [232].
South Somerset/Honiton ware, *c*1800-1830 [106].
N German Werra slipware, or perhaps more likely another sherd of Donyatt Ware [1/90]; see 2.3.7.7.
Pale stoneware, like Normandy Ware [119]; see 2.3.7.17.
Rhenish/English stoneware [64].
Raeren or Cologne stoneware, mug/cup, shoulder sherd [44].
Glazed black 'basaltz' (Staffs; Bristol etc) [231].
Possible Merida ware (Portugal) [231].
Piece with very shiny tin glaze. Possibly Spanish? [227].

Locations of findspots
A higher proportion of post-medieval sherds (*c*80%) than medieval sherds were found within either Area D (the village) or the landscaping layers derived from the village at the northern end of Area D. This appears to reflect the increased concentration of human activity in this part of the Mount in the later 16th, 17th and 18th centuries.

2.3.9 Modern ceramics (19th and 20th centuries), *by Carl Thorpe with comments from John Allan and notes on find locations by Peter Herring*
NB Most of the unassigned objects are probably of this period.

Modern Saltglazed Stoneware
Wheel-turned, hard-fired stoneware, saltglazed light brown, over a light grey to light buff fabric. Forms include tankards, mugs, and inkwells. Production in the 18th and 19th centuries, continuing into the early 20th century, was centred around Staffordshire and Nottingham (Jennings 1981; Allan 1984).

Twenty-one sherds of this material were identified in this collection, including drainpipe fragments, and the bases of two inkpots.

Modern White Glazed Stoneware
White-glazed stonewares, saltglazed, were first made in large quantities in the late 18th century and by the 19th century came to dominate the market. Fabric is white and fine, with an overall, even, white saltglaze. Mostly domestic uses with plates, mugs, bowls, and chamber pots predominating. Being utilitarian, forms changed little so are difficult to date precisely unless a maker's mark is present. Decoration is plain or with press-moulded rims on plates during the 18th century. By the 19th century hand painted, or blue and white transfer printed

decoration was common. The centre of production was around Staffordshire, especially Stoke on Trent (Jennings 1981; Allan 1984; Copeland 1992).

Some 73 sherds of this material was identified, mostly 19th century 'Blue and White' transfer-printed wares, though lack of makers' marks made closer dating impossible.

Modern Yellow Glazed Stoneware
Similar to *Modern White Glazed Stoneware,* but a 19th century development. Fabric is white, fine-grained with an even, overall, yellow saltglaze. Again utilitarian domestic wares, mostly plates. Usually undecorated. Production was centred around Staffordshire (Jennings 1981).

Five sherds of this ware were recognised, none had a maker's mark.

Modern White Glazed Earthenwares
Often called 'Creamware'; first made in the late 18th century. Manufactured from the same clays as *Modern White Glazed Stoneware* but fired at a lower temperature, and covered by a cream/white-coloured lead glaze. Main factories were in Staffordshire, but others were in Yorkshire, Derbyshire, Liverpool, and Swansea. Painted 'Blue and White' and transfer-print decoration distinguishes factories, as forms were consistent throughout the industry. Production peaked in early 19th century, being replaced by *Modern White Glazed Stoneware* (Jennings 1981).

Forty-six sherds of this material were recovered but none was diagnostic.

Modern Porcelain
The first successful porcelain production in Britain was in London in the mid-18th century, quickly followed by factories in Bristol, Worcester, Derby, and Liverpool. Various fine 'glassy' fabrics were made, their decoration inspired by oriental designs. Production increased in the 19th century; Derby and Worcester dominating (Jennings 1981; Allan 1984).

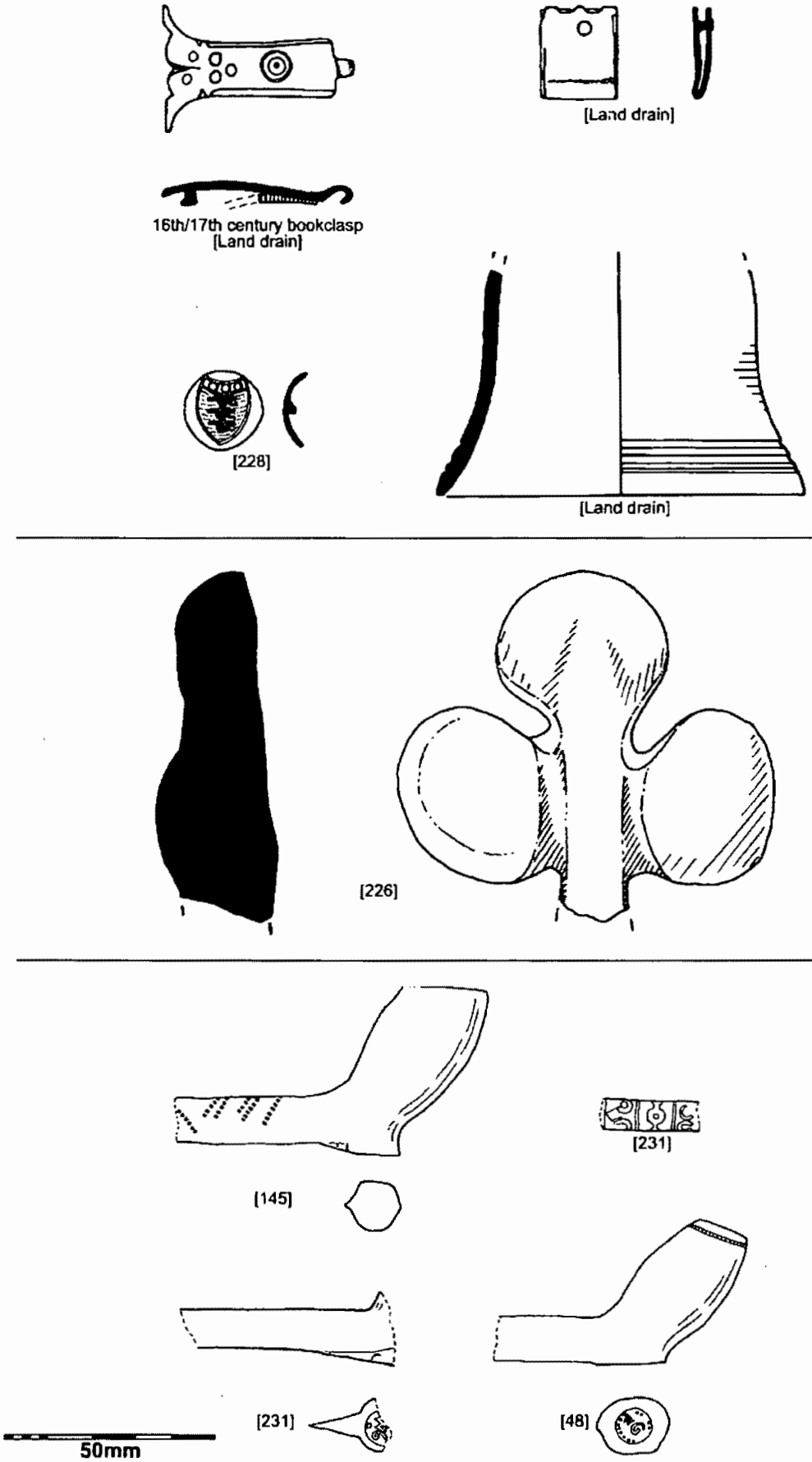
Two undiagnostic sherds of porcelain were recovered.

Other modern wares
A sherd of Chinese export porcelain, 1700-1750, from a cup, was found [226].
Mocha ware, c1800-1820, industrial production, English [74].
Some white-glazed wares were placed by John Allan well back into the 18th century, eg White Staffordshire salt-glazed stoneware, 1740-1770 [206].
Pearlware [231, 1/154].
Red glaze on N Devon gravel-tempered ware, 19th century, fired in a bottle kiln [226].

Locations of findspots
Nearly 90% of the modern sherds collected were from either the village or the landscaping layers at the northern end of Area B. There has been minimal modern activity here (besides gardening) since the late 19th century landscaping works.

2.3.10 Clay tobacco pipes, *by Peter Herring, Carl Thorpe and John Allan*
John Allan inspected the 98 fragments of clay tobacco pipe collected from the sewer trench during his review of the post-prehistoric finds and the following identifications are largely his. Most fragments came from Area D, in the village: 8 bowls and 59 stems, and nearly all the rest came from either the topsoil and spoil of Area B (4 bowls and 14 stems) or the landscaping layers in its northern part (1 bowl and 9 stems). Two possibly 17th century stems

Fig 16 Selected metal and concrete artefacts and tobacco pipes. Numbers refer to contexts (see Appendices 2 and 9). Drawings by Carl Thorpe and Peter Herring.



were found near the Civil War battery in Area A [PB] and a possibly 18th century stem was found in the upper layers of the pit [170] towards the south end of Area C.

In Area D two of the three earliest looking stems, of probably 17th century date, were found on the lowest cobbled floor [122], and the third was in a layer [209] sealed beneath the cobbling of Middle Street (a probably early 18th century street). Most of the other fragments from this Area, found in contexts either between the two cobbled floors or within the fill of the pre-18th century lane, are also either late 17th century or 18th century and include a good assemblage of pieces from context [145] which are closely dated to 1680-1710 and include four bowls, one with a roulette finish. Three bowls from fill layers of the earlier lane are slightly later, dating from the very end of the 17th century or more likely the early decades of the 18th century [202 and 203]. The large number of stems collected from the spoil in Area D [231 and 232] are also 17th and 18th century and include one decorated with low-relief floral and diamond-shaped marks which may be Dutch in origin.

In Area B the 17th and early 18th century bowls and stems come mainly from the northern dump layers of the landscaping, material that will also have probably originated in the village. These include a late 17th century bowl [48] with a heel impress of WG, the maker, which matches another from spoil in Area D [231]. Later 18th and 19th century pieces come from the topsoil [1] and general spoil [226, 227 and 229] in Area B and include a bowl decorated with a moulded relief of the Royal coat of arms and a bust of George IV (1820-30) [226].

2.3.11 Tiles and bricks, *by Peter Herring, Carl Thorpe and John Allan*

Large numbers of 18th and 19th century brick and pantile fragments were collected, mainly from Area D and the northern landscaping layers of Area B. In total there were 63 pantiles and 31 bricks. Eighteen ridge tiles, nine floor tiles, three oven floor tiles, one cloam oven fragment and six drain fragments were also found. John Allan inspected them during his review of the post-prehistoric finds and the following identifications are largely his (see Appendix 2 for details).

Most of the bricks are 18th century and hand-made (good example in context [172]). In the village, where most appear to have been used, they may be expected to have been found in chimney stacks and architectural detailing rather than in brick buildings. Two slightly earlier bricks, of 17th or 18th century date, were built into the garden wall [15] which was cut by the trench in Area B. A late 17th century Dutch brick, yellowy green in colour and smaller in size than the local later bricks, was found in a dump layer [107] between the two cobbled floors of the village in Area D. A large hand-made brick, probably of the 18th century, used in a furnace was found in the spoil [231] from the northern part of Area D, in the village.

Three fragments of late medieval oven tiles, or oven floors, were found in the southern part of Area B [1/94; 4] and in the garden beds. These are less likely to have originated in the village and more likely to have come from either the summit complex or buildings on the southern or eastern slopes. A fragment of probably North Devon cloam oven was found in the spoil [231] from the northern end of Area D, and this may be expected to have been incorporated in to one of the 18th century cottages here.

An important collection of nine fragments of mid-16th century Dutch floor tiles was made from spoil in the southern part of Area B, near the pillbox [226; 227; PB2]. They have a sandy red fabric and either have a slip and yellow glaze or a dark green, almost black glaze;

slips have been scraped (to save material) and backs sanded. They were square and would normally have been laid in a checkerboard pattern in a relatively high status building, probably secular but occasionally ecclesiastical, such as a chapel (see Allan 1984, 236-240). An 18th century floor tile with stabbed prick marks was also found in spoil towards the southern end of Area B [229].

Four late medieval hand-made ridge tiles (probably used in association with Delabole slates) were found, two in garden beds to the south of the summit complex, from which they may well have come [GB2; GWT], and two more from contexts in Area B [212 and 217] close to the site of the later medieval building (the so-called banquetting hall). One of the two from the gardens [GWT] has a hand-moulded crest incise-decorated with a typical fir tree motif. Fabrics are generally Cornish.

Post-medieval ridge tiles, however, include a few in North Devon fabrics. One, from the general spoil in Area B [226] has a thumb-pressed ridge and wavy line finger decoration. Most come from either Area D or the landscaping layers in the northern part of Area B, which also probably originated in the village.

All of the fragments of terracotta pantile came either from topsoil, spoil or contexts associated with the village (Area D or the northern landscaping layers in Area B). Most are typical 18th and 19th century forms, probably from the Bridgewater works in Somerset, but there is one 18th century pegged tile (possibly used on a wall) from the Hampshire area [202], and two other pantiles possibly from the Netherlands [193; 226]. Two others have post-1700 curved profiles [203]. Pantiles were often carried as ballast so there may not have been pantiled buildings on the Mount; the red-roofed buildings shown on the *c*1515 map of Mount's Bay are too early to have been tiled with the pieces found in the sewer and later representations of the Mount show buildings in the village with either grey, slate or thatched roofs.

A fragment of plain white Delft wall tile, of 18th century date, and probably from a bathroom, was found in the topsoil [48] in the northern part of Area B and thus probably came from a relatively high status building in the village.

Fragments of saltglazed 18th or 19th century sewer or drain pipe were also found in the village area [43, 231].

2.3.12 Glass, *by Peter Herring, based on comments from Carl Thorpe and John Allan*

A total of 43 shards of glass were collected from the sewer trench.

Identifications were initially made by Carl Thorpe and some were revised by John Allan while looking through the collection (see Appendix 2 for details). No Roman or medieval glass was noted, but a number of shards of 16th to 18th century glass were identified. These are divided here into vessel and window glass.

Vessel glass

The earliest shard is a small badly weathered piece of very thin, pale green, North European vessel, of the 16th or 17th centuries, found in 1992 eroding out of the eastern cliff face [1992/15]. Of the 17th century are a fragment of a pale green, thin-walled case bottle, square-shaped for storing in a wooden case [226], and a shard of green 'onion' glass bottle of the 1660s [1/137]. Both were found on the Mount's eastern slopes, as were two shards of thick-

walled English green bottle glass of the late 17th or early 18th centuries [26 and PB].

Eighteenth-century green bottle glass shards were found within the village (Area D) and on the eastern and southern slopes [*inter alia* 1/85, 1/160, 21, 178, 186, 202, 227]. A neck of a flask, of the turn of the 19th century was found above the highest cobbled floor in the village [137], and a fragment of 19th century codd bottle came from spoil on the eastern slopes [226].

Window glass

Two small fragments of early post-medieval window glass were found in the topsoil and spoil towards the southern end of the eastern slopes. One is a diamond shaped quarry with grozing along the two surviving edges [1/81]; this was found in the immediate vicinity of the large building [221], and a 16th century date is likely. The other is later, of the 17th or early 18th century [227].

2.3.13 Coarse metalwork, *by Peter Herring, based on comments from Carl Thorpe and John Allan*

Items of coarse metalwork were found in the sections of the sewer trench and others were recovered with the help of Roy Powell and his metal detector, which was used on the several spoil dumps. Identifications were initially made by Carl Thorpe and some were revised by John Allan while looking through the collection (see Appendix 2 for details).

A well-finished thin pin was found in the bottom fill layer [5] of a probably early pit on the eastern slopes in Area B. It is possibly late prehistoric or Roman, and should be considered for x-raying (John Allan, pers comm).

Lead objects found with the help of the metal detector in the spoil of Area B [226] included two small undated triangular fishing weights (each pierced with holes at their widest points and one with a small incised cross), and an architectural fragment which included a socket for a pintle of some kind. In the spoil of Area D [231], in the village, the detector located the base of a sounding lead (used on ships to check depths of passages in rocky or shallow water) and a fragment of a folded sheet.

A small brass modern cartridge was found in the spoil of Area A [228], close to the Second World War pillbox from which it presumably originated.

Thirty-eight hand-forged nails were recovered of which thirty derived from spoil from Areas B and D or the landscaping layers in the northern part of Area B and thus probably came from structures in the village. Six more came from stratified post-medieval and modern dump layers in the village. One of the remaining two was found in a dump layer [10] south of the garden wall in Area B, and the other in the fill [215] of the probably 14th century grave. This last suggests that at least some of the others may be medieval in manufacture. It is not known whether there was ever a smithy on the Mount in which such nails could have been made (none is marked on 19th century maps), but it is likely that one existed in a busy semi-industrial settlement such as the post-medieval harbour village. Several lumps of clinker and slag were recovered from contexts either in the village or probably derived from it. Twenty-four unidentified, amorphous and rusty iron fragments were found, again mainly in contexts associated with the village.

A horse shoe, of probably 17th or 18th century date, part covered with pitch paint, was found in the general spoil of Area B [226], and a rusting pair of scissors in the spoil of Area D [231].

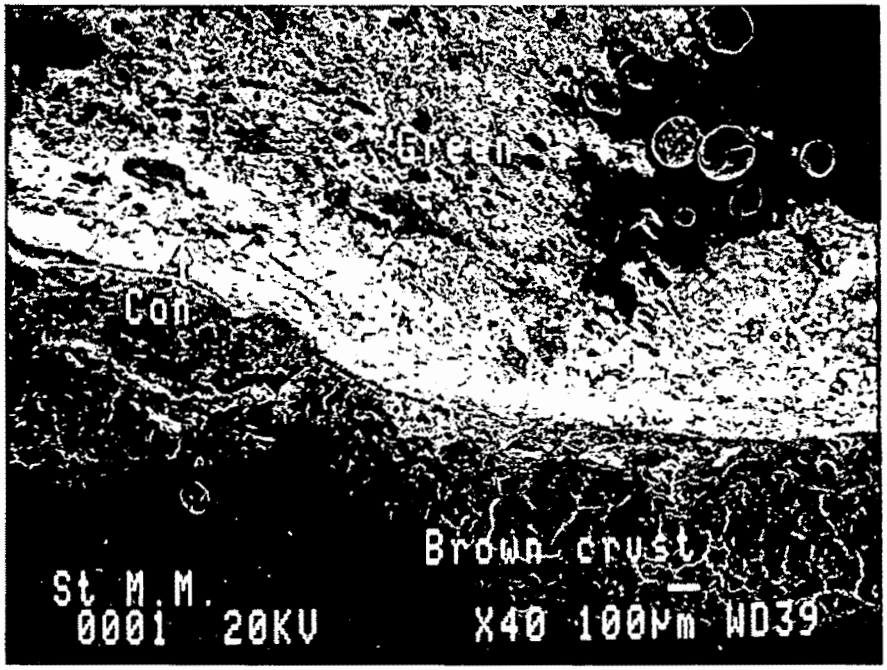


Fig 17 Section through copper ingot (x40) photographed by Tony Ball of Camborne School of Mines

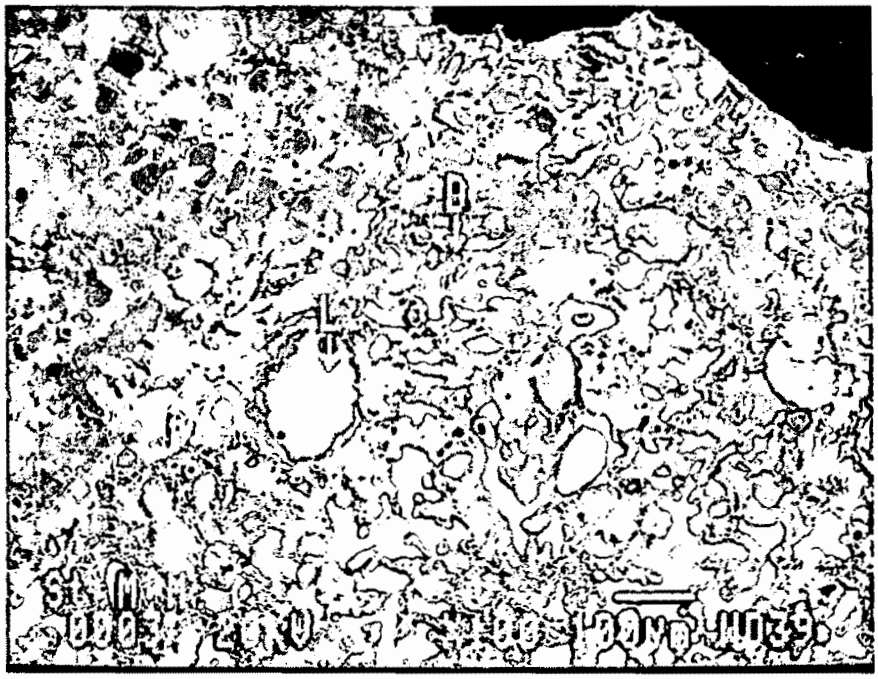


Fig 18 Section through copper ingot (x100) photographed by Tony Ball of Camborne School of Mines

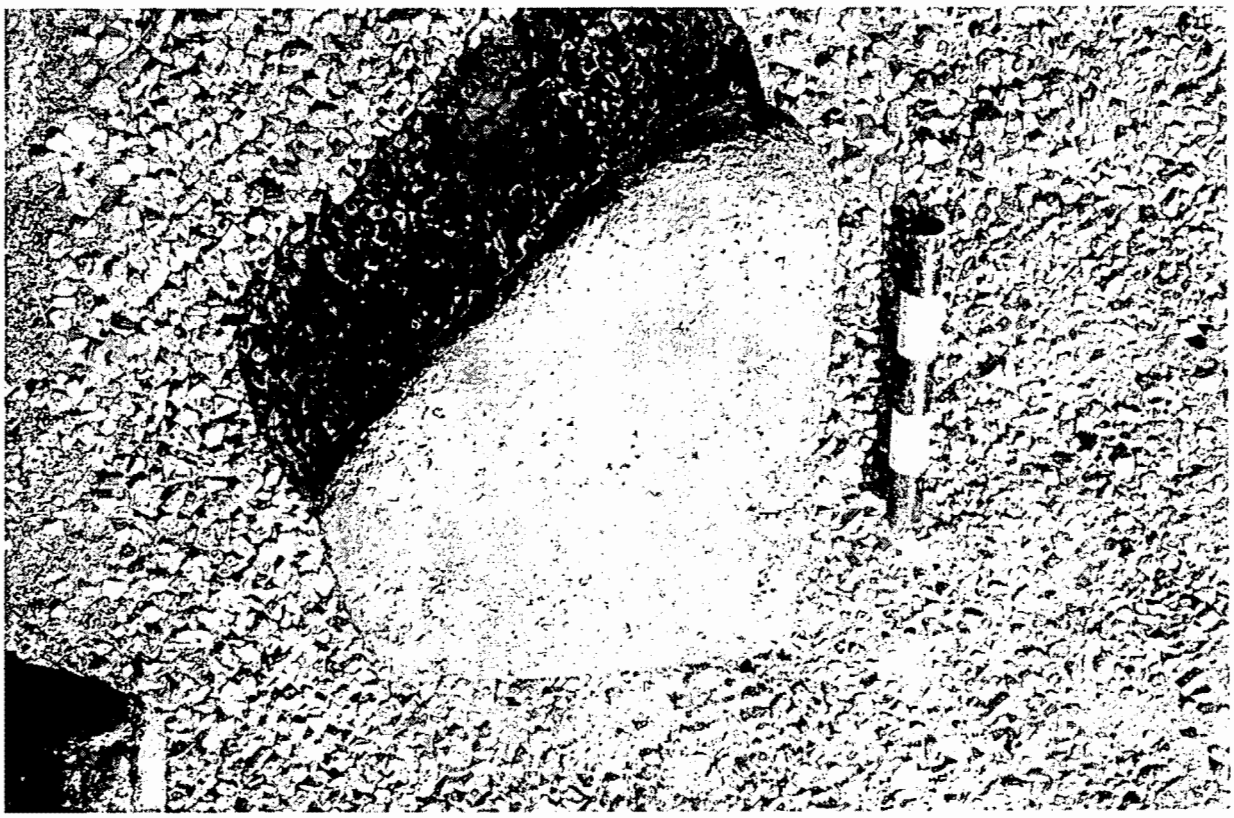


Fig 19 Granite saddle quern immediately after removal from section of prehistoric round house (200mm long scale)

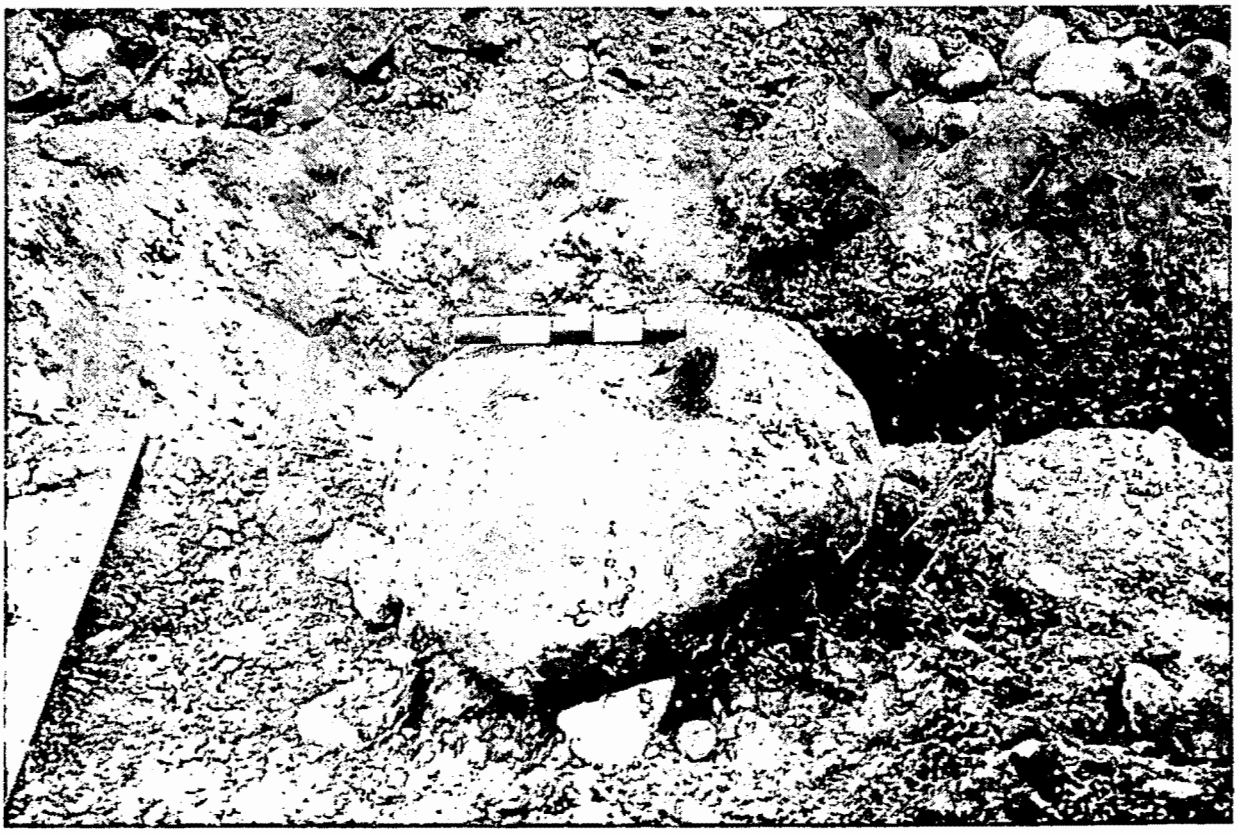


Fig 20 Granite fish press weight found in dumping layers within the harbour settlement. The wrought iron hook is leaded into a socket cut into the stone (200mm long scale)

2.3.14 Coins, buttons and other fine metalwork, *by Peter Herring, based on comments from Carl Thorpe and John Allan*

See Appendix 6 for notes by Dr Barrie Cook of the British Museum's Department of Medieval and Early Modern Coinage on an early 15th century Flemish low denomination coin and a late 16th or 17th century Nuremberg jetton, both found by Roy Powell using a metal detector on the spoil dumps from Area B.

A 19th century copper alloy coin (too corroded to make out impression) was found in the spoil of Area D [231].

Four buttons were recovered, two 18th or 19th century examples of copper alloy from spoil in Area D [231], the village, and a third, a simple silvered copper alloy example probably of the 19th century, from the dump layers in the northern part of Area B [72]. The fourth, of copper alloy with heraldic livery decoration comprising three pillars and three rampant animals, was found in spoil in Area A [228], from near the Civil War and 18th and early 19th century batteries on the south-eastern shore of the Mount. It may have been lost by an infantryman serving in the later battery.

Another interesting metal artefact that could possibly date from the later medieval period (found in the topsoil on the eastern slopes; [1/168]) is a concave metal disc, 3.3 cm diameter, stamped out of copper sheet. The edge has been rounded to remove sharp edges and there are three small perforations forming a triangular pattern just within the circumference of the disc. At the centre a circular stamp 1.1cm diameter has been punched which bears a heraldic device of a large crown surmounting two small fleurs des lys. There is an inscription RE ?? EL, mostly illegible, but possibly readable after conservation. Identification of the artefact is uncertain but it appears likely to be a decorative bridle boss (cf Clark 1995, fig 40). The style of lettering suggests a 13th or 14th century date.

2.3.15 Human bones, *by Peter Herring*

Two Christian burials were cut by the sewer trench. One [215/338] was recognised at the time, having part of a skull and femurs, and full police/Coroner involvement ensued but the second [201], in the complex remains in the village (Area D) and comprising a disturbed jumble of broken rib, clavicle and pelvis bones, was only identified after the contexts and artefacts had been analysed (see Appendix 4). Neither person could be sexed but both appear to have been mature adults. Bones from both bodies were radiocarbon dated (Appendices 3 and 4) and gave valuable dates for burials on the eastern slopes (13th-14th centuries) and the village area (10th century).

Fragments of possibly human bone were found in dump layers to the south of the garden wall in Area B. These may have come from either the immediate vicinity (ie the later medieval burial ground) or the village area (the earlier medieval burial ground).

2.3.16 Bones and fish scales, *by Peter Herring, Carl Thorpe and John Allan*

No detailed analyses of the small numbers of animal bones collected was undertaken as all were from layers containing mixed debris and results could therefore not be applied to any particular historical contexts.

Large numbers of limpet, oyster and mussel shells, and smaller numbers of winkles, all edible shellfish, were noted in certain contexts both within the village and in the 19th century landscaping dumps (probably originally from the village) on the north-eastern slopes.

Samples were not taken. Crab claws were also noted, as was a dense layer of fish scales in one of the dumping layers [176] in the village.

A boar's tusk [19], a horse's tooth [1/78], and fragments of pig and cattle bones, some sawn [74 and 231], were also recorded. Wild animals whose bones were noted included rabbits and shrews.

2.3.17 Burnt clay, slate, mortar and cement, *by Peter Herring, Carl Thorpe and John Allan*
A group of lumps of burnt clay found in spoil dominated by later prehistoric pottery from immediately west of Mackerel Bank [227] included one piece which was considered by John Allan to be a possible loom weight, perhaps, like the pottery here, of late prehistoric date.

Fragments of roofing slate were recorded in many later medieval and post-medieval contexts. Only a few well-preserved pieces were collected. Most are simple rectangular shapes and have single nail holes. There is great variety in widths, lengths and thicknesses, probably reflecting the age of the structures roofed, which on the Mount will date back to at least the later medieval period, as indicated for example by the blue roofs shown on the 16th century map (BM, Cotton MS. Augustus Ii.34). With the possible exception of those in context 106, which may be from South Devon, all appear to be of a north Cornish Delabole type slate.

Many post-medieval contexts contained either fragments or flecks of lime-based wall plaster (see Appendix 2 for descriptions) but few pieces were collected, an example that was being [175]. Amongst the large granite stones of a debris deposit [context 42] was a large piece of mortar on which original trowel marks were clearly visible; from its context a post-medieval date is most likely. Two pieces of partly burnt limestone [217, 167] may be used to suggest that burning lime for plaster was taking place on the Mount itself. See site 91643 (Herring 1993a, 165) for a possible lime kiln site on the northern slopes. Since the 1992 survey was undertaken, Ken Isham of Carn Grey near St Austell has provided the Unit with notes on a limekiln on the Mount extracted from his survey of Cornish kilns. A lease of a lime kiln to the south of the fish cellars was granted by John Bassett to John Hill of Marazion in 1657 (CRO, RH 324; Isham 2000, 172).

A small trefoil finial of 'Roman cement', material identified by John Allan, was found in the general spoil of area B [context 226]. Roman cement was discovered, or invented by Rev James Parker of Northfleet and patented in 1796, being used most extensively between 1810 and 1830 (Stanley 1979, 10; John Allan pers comm). The Mount piece is most likely to have been associated with summit works which included the elaboration of the Lady Chapel either around 1811 or, perhaps more likely, around 1826 (see Herring 1993a, 72). To find its way into the layers cut through by the sewer trench, this fragment of decoration will either have never been installed or have been broken off and discarded by the late 19th century.

2.3.18 Stone objects, *by Peter Herring*
A good example of a granite fish press weight was found upside down in a dump layer [147] between the two cobbled floors in the village. It is a water-rounded stone weighing at least a hundredweight and retains its iron hook, carefully leaded into a hand-drilled hole. This would have been attached to one end of a long wooden beam whose other end was fitted in to a slot in the wall of a fish cellar. The central part of the beam would then have pressed down onto the lid of a barrel to squeeze the 'train' oil out of pilchards. As the stone was intact and therefore still of use to fishermen it seems likely that the dumping took place during a period of depression in the St Michael's Mount fishery.

Three small lumps of limestone burning waste were found, one in a relatively early context [217], in the late medieval or early post-medieval fill of a pit south of the 'banquetting hall' in Area B. These waste pieces may have come to the Mount with soil sweetening lime (as large numbers are found in the plough soil of Cornish fields treated in the modern period), but the early date of one suggests it is more likely that there was an early limekiln on the Mount itself. This is likely to have been the kiln on the northern slopes which has mid-17th century documentary references (see above, 2.3.17) and which could well have been earlier if one of the main uses of its product was in wall plaster and mortar used in the summit buildings.

Five pieces of coal were recovered from early modern contexts in the area of the village [49; 51; 146; 170; 206] and numerous fragments were noted in the dump layers at the north end of Area B..

2.3.19 Conclusions and observations, *by Peter Herring*

Our understanding of the Mount in prehistory has been deepened in this project, firstly by the collection of flint and other stone artifacts, and secondly by the concentrations, in the area behind the Mackerel Ridge defences, of later prehistoric pottery, together with the ingot mould and saddle quern. There was no exotic metalwork to compare with that found at Mount Batten (cf Cunliffe 1988) but there were sherds of pottery which were not entirely local, suggesting, as Henrietta Quinnell pointed out, that there were likely to have been long distance trading links.

Though known from independent documentary evidence to have been an important port through the medieval, and post-medieval periods, it is of interest that there are few foreign imports within this collection, those present mostly coming from France or Germany (see tables in 8.7 and 8.8, below). Indeed this collection is noteworthy for its conservatism, perhaps a reflection of the income (poverty) of the harbour village in that it utilised mostly local wares and products. Material from more distant places seems to have passed tidily through the settlement, presumably along the causeway to Marazion and beyond, although we may imagine some also finding its way to the higher status priory, castle and house at the Mount's summit. Pottery from North Devon came to dominate by the late 16th, early 17th centuries, until it, in turn, was supplanted by the cheaper mass-produced wares of Bristol and Staffordshire in the 18th and 19th centuries. The importing of ceramics into the South-West region is well summarised by John Allan (1984, 98 - 145).

3 SURVEYS CARRIED OUT IN RESPONSE TO THE SEWER TRENCH

3.1 Possible prehistoric house platforms and neighbouring sites

The sewer trench in Area A cut through a possible house platform [335] which produced numerous later prehistoric artefacts including pottery, a plano-convex copper ingot and a granite saddle quern (see 2.2.1). Inspection of the ground in the vicinity revealed a number of other possible house platforms, sub-circular areas apparently levelled into the moderately steep slopes to the west of the natural ridge of metamorphic rock known as Mackerel Bank. It was thought that these may represent the remains of a small prehistoric settlement tucked within the previously recorded defences running along the spine of Mackerel Bank (Herring 1993a, site 91546).

The complex was planned at 1:200 by Peter Herring and Victoria Furneaux in July 1998 using a plane table, alidade and tape measure (Fig 21). To place the platforms in context, the edge of Mackerel Bank was also planned, along with the post-medieval military features along the cliff edge (Civil War and 18th century gun batteries and World War Two pillbox, sites 91560, 91568 and 91571 respectively). Several large granite boulders in the area were also planned; some had possibly been shifted by prehistoric house builders, and others had possibly been incorporated into their buildings. It should be recalled that a large block of granite formed the east side of the house platform [335] as revealed in the sewer trench section.

A number of ornamental shrubs, phormia and lilies, including agapanthus, have been recently planted in the area. These make the platforms less clearly visible (and more difficult to survey), and some of their root systems will be disturbing important archaeological layers. *It is recommended that no more shrubs or large ornamental plants are planted in this area.*

3.1.1 House platforms

The 1998 survey recorded six possible house platforms in the complex, labelled A to F on Fig 21. A rapidly prepared sketch plan created in 1995 during the sewer watching brief included another possible platform, to the west of platform C, but the closer inspection that a survey always entails revealed that this was almost certainly part of a later path or trackway. The most westerly platform (F) was identified during the 1998 survey.

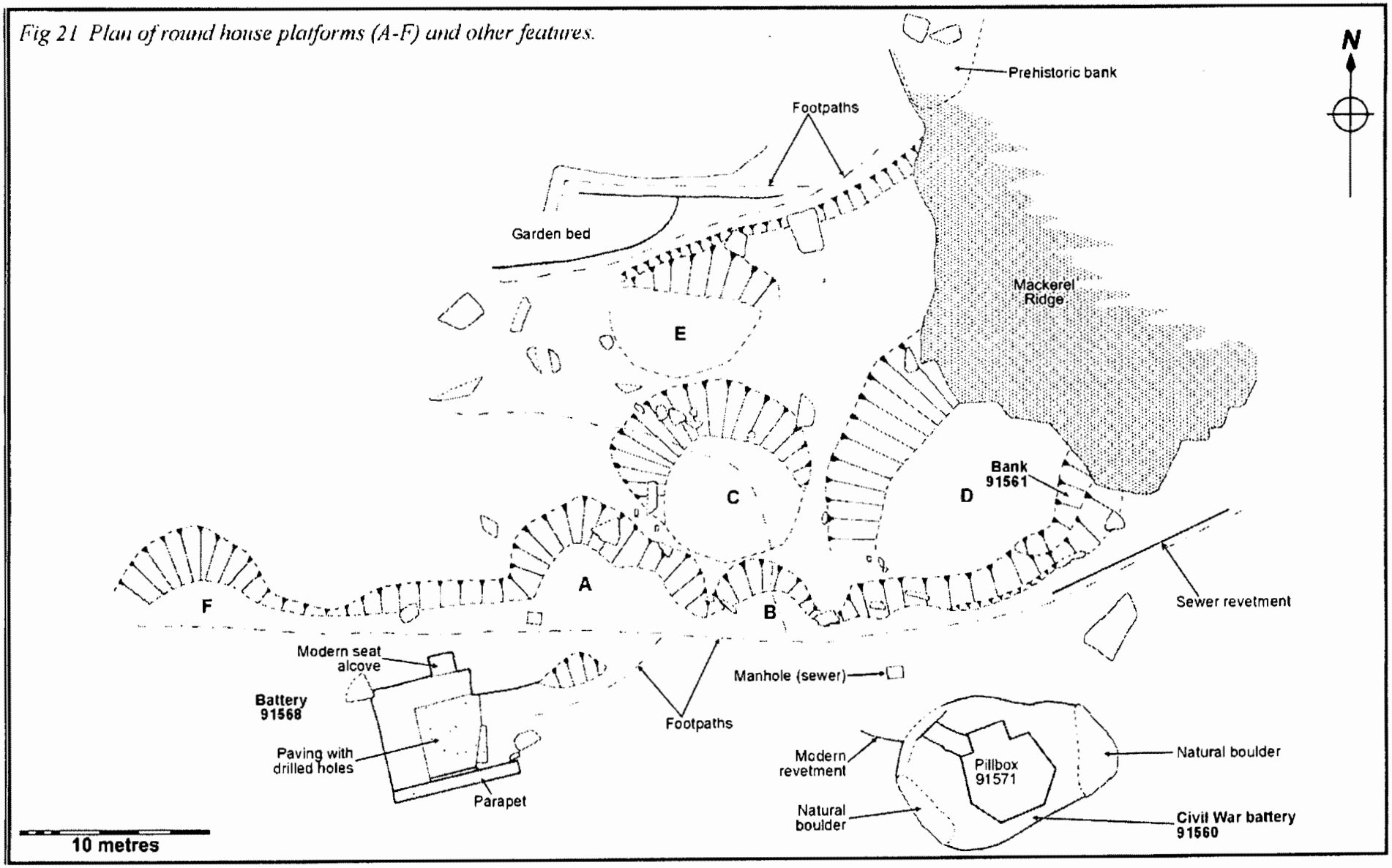
Platform A

This is the possible house platform cut through by the sewer trench that contained the saddle quern and copper ingot. Only the uphill north-eastern cut is clearly visible on the ground, and this runs a slightly irregular course, as if it respects the prior existence of platform C, less than 1 metre away to its north-east. Approximately half a circle survives and a maximum diameter of 10.6m can be measured, from tops of cut scarps; an internal diameter of *c*7.5m may be expected, judging from the surviving levelled area . The cut is now 0.7m deep, and incorporates at least two large granite stones which may have been elements of its walling.

Platform B

The sewer trench also cut through this possible house platform. It is significantly smaller than A, being just 5.9m in diameter, from tops of scarps; an internal diameter of *c*4.0m may be expected. The cut is now 0.4m deep.

Fig 21 Plan of round house platforms (A-F) and other features.



Platform C
This is the most clearly defined house platform, with a circular levelled floor 7.6m in diameter. The uphill cuts, to 1.3m deep, are clearly defined and incorporate several large granite stones.

Platform D
Tucked in against a low cliff forming part of the Mackerel Bank ridge, this platform is ovoid in plan, its levelled area being 12.0 by 7.4m. The uphill cut is up to 1.3m deep and there is also a clearly defined downhill platform (presumably formed partly of the soil excavated from the cut); this is 0.6m high. If entry into the settlement was normally from the gap at the southern, downhill end of Mackerel Bank, then this will have been the first house visitors would encounter.

Platform E
The highest of the recorded platforms, just 1m above the cut for platform C, this platform may have had its plan distorted by the establishment of a post-medieval path running west to east from the gardens to the top of Mackerel Bank. It survives as an ovoid platform 8.0 by 5.2m but its downhill line suggests that it was probably originally fairly circular in plan.

Platform F
The modern pathway running along the southern side of the Mount cuts through platforms A and B and also this possible platform 15m to the west of A. Only a curving uphill cut survives but this is very similar to those of A, B and C. If it is a house platform its levelled area may be expected to have been around 6m in diameter.

3.1.2 Extent of settlement

Post-prehistoric natural processes and cultural activities in the area of the settlement may have disturbed it, either destroying or reducing the visibility of other house platforms. As surveyed, the settlement's southern and western edges are uncertain but those to the east and north are fairly definite. To the east the natural ridge of Mackerel bank confines the site and to the north the base of the Mount's great granite outcrop does. To the south, however, the settlement may have extended onto gentler slopes that may well have been truncated by sea erosion, and have certainly been disturbed by the creation of later medieval and post-medieval defences. It is difficult to predict whether the later prehistoric settlement extended here. While this area may have been more level and thus easier to build on, it will also have been more exposed to both the elements and to any potential attackers.

To the west of the surveyed area are St Michael's Mount's southern gardens. Platform F is immediately to the south of one of the numerous walled terraces created from at least the 18th century in this area. It is quite possible that other prehistoric house platforms existed in this area.

3.1.3 Form of the houses and settlement

If the platforms recorded in the 1998 survey are accepted as being the stances of late prehistoric houses, it is possible to make a few comments on their nature and that of the settlement. Firstly, with the exception of platform D, all the stances are essentially circular, and the houses on them can be predicted to have been round, with conical thatched roofs. Platform D may also have contained a round house; the proximity of jutting outcrops from Mackerel Bank will have made its effective space less elongated than appears on the plan.

Cornish houses were principally circular in plan throughout later prehistory, but appear to

have been replaced by more ovoid or sub-rectangular houses in the Romano-British period (see Quinnell 1986, 126). Although it is too early in studies of early house forms to be dogmatic about the association of round houses with the prehistoric period, the shapes of the house platforms here on the Mount can be used to suggest that the settlement was probably established in pre-Roman times.

As noted above (3.1.2), the original extent of the settlement is not known, but the portion that survives indicates that the houses were remarkably closely spaced. Their roofs can not have projected far beyond their walls if people were to have been able to pass between houses, some of whose cuts were less than 1m apart. It is possible that the houses were closely spaced so that all gained cover from Mackerel Bank, but the possible platform F may be used to indicate that the settlement extended more than 40m to the west of the defences and that houses were built on all available suitable ground. It should be noted that most of the land west of Mackerel Bank is largely unusable by house builders, being either excessively steep or covered in large granite boulders.

3.1.4 Post-medieval military installations

91560 Civil War battery (see Herring 1993a, 109-110)

One of the two platforms behind the castle built by Sir Francis Bassett between 1642 and 1645 to strengthen the Royalist garrison on the Mount. The 1998 plan shows its shape to have been more pear-shaped than circular in plan, the irregularity being a function of the use of *in situ* natural boulders in parts of its western, southern and eastern sides. Overall, it is 12.0m by 8.2m and its slightly battered walling is well built. There is a hint of the former existence of a narrow parapet wall on the western side, but the site was disturbed by the insertion of the Second World war pillbox (site 91571, below).

91561 Bank (see Herring 1993a, 110)

This short stretch of stony bank was identified in 1992 when it was suggested that it was either part of the breast work (site 91254) running around the base of the Mount, or a defensive line linking Mackerel Bank to the Civil War battery 91560 (above) (Herring 1993a 110). The 1998 survey did not throw any new light on the problem although it did confirm that the bank overlay the possibly prehistoric house platform D.

91568 Battery (see Herring 1993a, 115)

This well-preserved 18th century battery was planned as part of the 1:200 survey. Little can be added to the 1993 description beyond noticing that the gun platform (with its fine ashlar granite paving) was extended a little to the east by the addition of a sliver of less regular paving. This accentuates the existing eastward splay and suggests that the cannon on this battery was regularly turned to the west, out to sea. The lack of westward splay confirms, as would be expected, that the cannon was not turned in towards the land.

An array of eleven holes drilled into the gun platform was planned. Six of the holes (1-6) formed the southern arc of a circle eccentrically positioned on the platform; one (7) was at the opposite, northern side of the circle; and two more (8 and 9) were at or near the circle's centre. The remaining two (10 and 11), which included one on the eastern extension to the gun platform (thus indicating that the array is relatively late in the battery's life), were positioned beyond the circle on each side; a line (A-B) drawn through them would pass between the two central holes. A twelfth hole drilled into the parapet wall formed a line (C-D) with the rear northern hole (7) of the circle which was perpendicular to A-B. It seems likely that the holes are remnants of a gun support that allowed the cannon to be rotated.

The 1809 Ordnance Survey field drawing of the defences of Mounts Bay records this battery as having one twenty-four-pounder gun.

The survey confirmed that the walling along the western and northern sides of the battery is later, probably of the early 20th century (not being shown on the 1908 OS 1:2500 map), and forms a garden feature with a seat alcove built into its rear, northern wall. The walling overlies the north-eastern corner of the gun platform.

91571 Pillbox (see Herring 1993a, 116)
The 1998 survey adds little to the 1992 record. This pillbox and that further west (site 91570) are modified versions of Type 24, hexagonal with the entrance in a longer rear wall (see Brown *et al*, 1995, 82-3). It was set into the Civil War battery (site 91560, above) with the embrasures set just above the floor level of the old battery. An entrance passage was cut through the Civil War platform and lined with rough stone walling. This passage was blocked off after the war with a stone-faced wall retaining the round-island path.

3.2 Late medieval building

The late medieval building [221] recorded in the sewer trench in Area B also survived as slight earthworks, ranging from 0.1 to 0.7m high, on the slope above. These were planned at 1:100 by Peter Herring in June 1995 using offsets from a straight line (Fig 21). The building, at least 14m (46 feet) long, from north to south, and at least 5m wide, was platformed into the slope on a slight rise a short distance to the south of the prominent outcrop. It was itself a prominent building, apparently intended to be seen and appreciated from afar, being set on one of the highest usable parts of the relatively stone-free eastern slopes. A single sycamore tree now grows within the ruined building, making its position easy to identify.

As noted above (2.2.2), the building is almost certainly that portrayed on early drawings of the Mount. It was shown roofed (with blue roofing slate?) on the *c*1515 drawing, and unroofed on the *c*1595 drawing by John Norden, and the 1734 Buck brothers' engravings. Lord St Levan (St Aubyn 1978) associated the building shown in these representations with that recorded by Hitchins and Drew in 1824, which stood near the village 'within the recollection of the last generation, a building that belonged to the priory, which was forty-five feet in length, and was called the banqueting house' (Hitchins and Drew 1824, 326). The close matching of the remembered length and that measured on the ground (46 feet) seems to confirm this association.

3.3 Garden wall

A wall [15] visible in both sides of the sewer trench was also noticed as a slight linear earthwork, to 0.4m high and 4.5m wide, on either side of the trench, visible as far as the ground was not covered with bracken and long grass. It was planned at 1:200 by offsets from a straight line in June 1995 by Peter Herring. In the trench section the wall was seen to be neatly faced and only 0.84m wide; there seems to have been considerable spreading of wall material to create the 4.5m wide earthwork.

The wall is possibly part of the southern boundary of the ornamental 'garden' shown on the 1834 and 1843 estate plans of the Mount (Herring 1993a, figs 41 and 42). This was still standing in *c*1856 when William Jenkyns photographed the eastern wall of the garden (see Herring 1993a, fig 38) but had gone by 1876 (OS 1:2500). Jenkyns' photograph shows the wall's facing comprising roughly coursed laid stones topped with rounded coping stones.

Most of the northern parts of this garden were removed by the later 19th century landscapings (see 2.2.3).

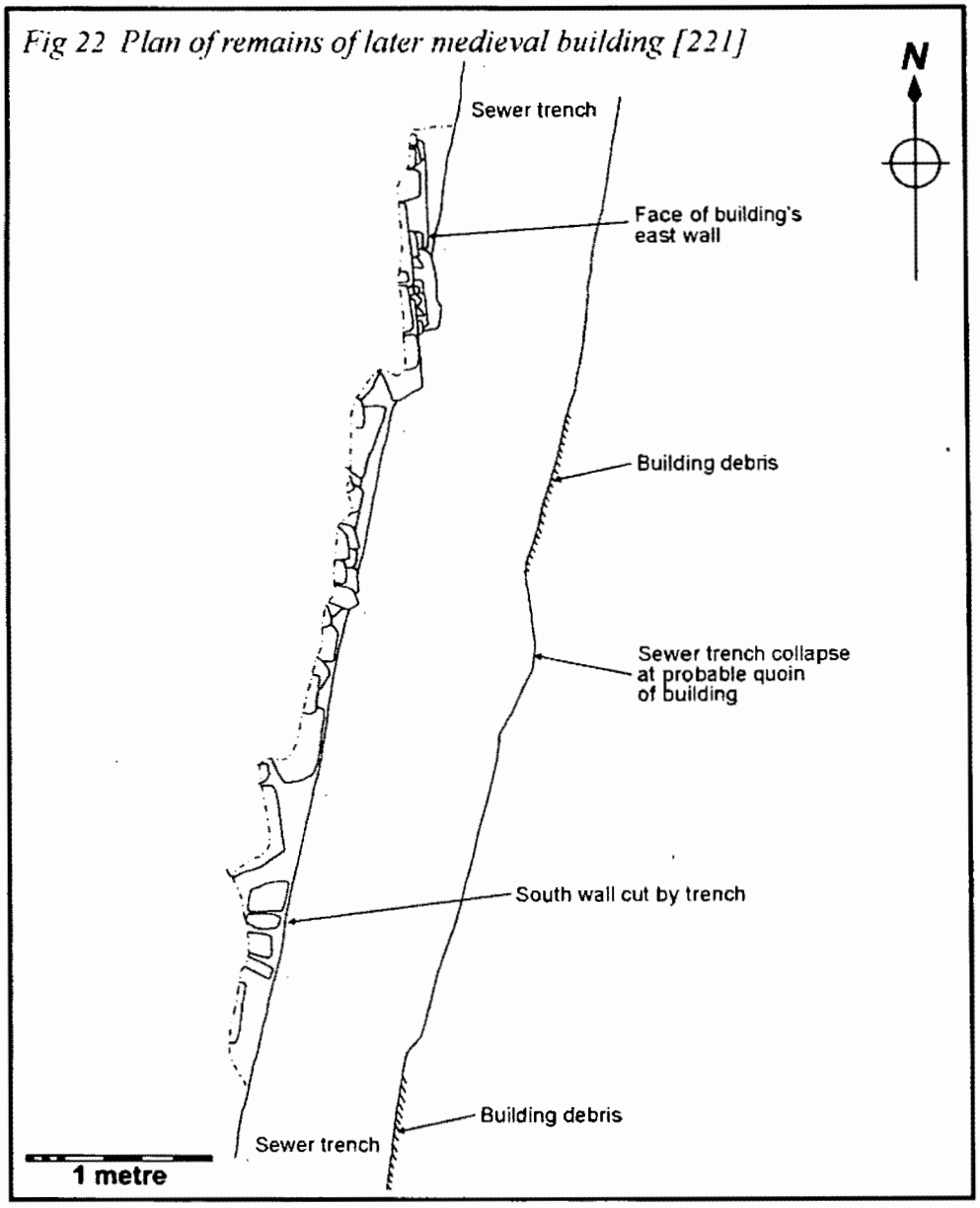
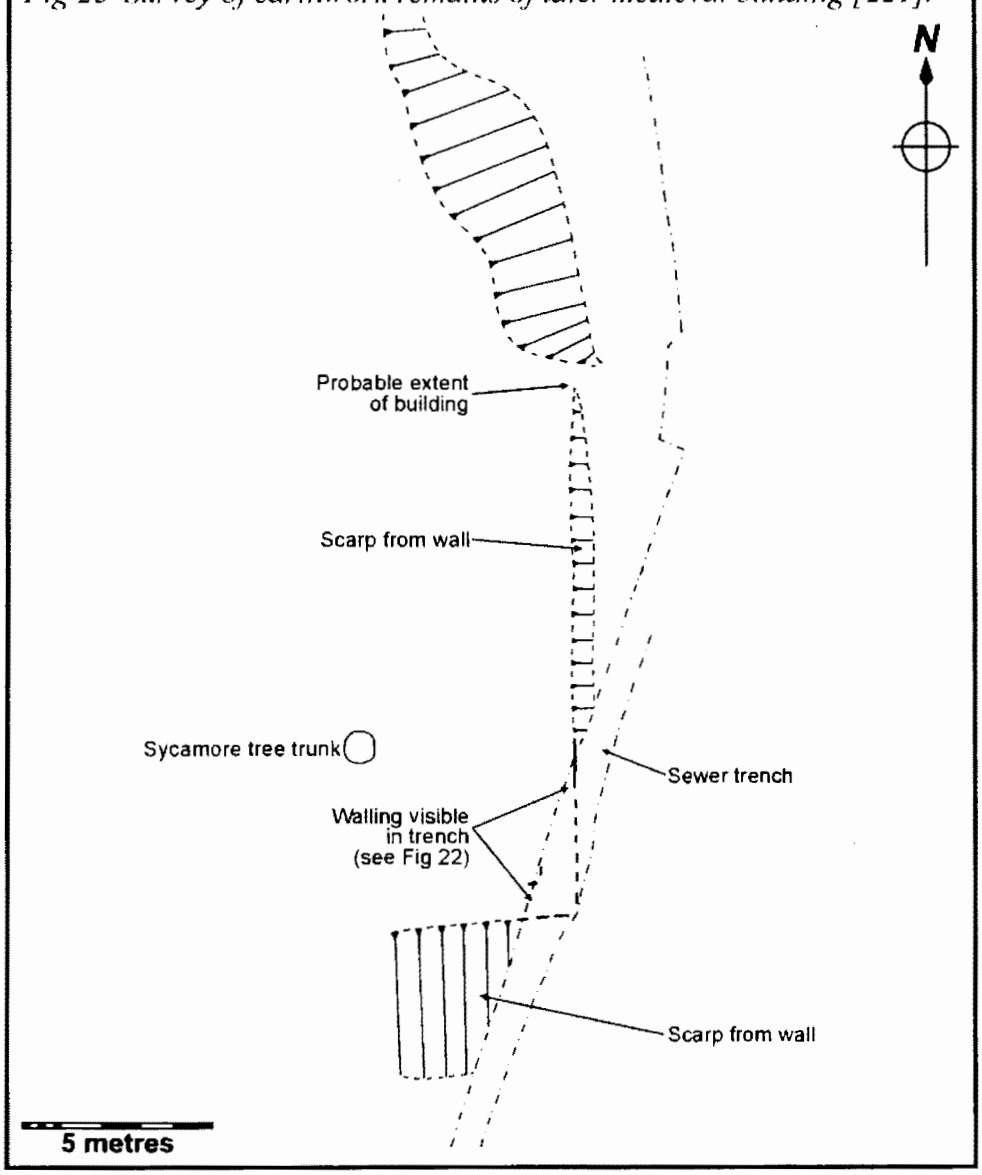


Fig 22 Plan of remains of later medieval building [221]

Fig 23 Survey of earthwork remains of later medieval building [221].



4 SURVEY OF THE WESTERN APPROACHES TO THE SUMMIT

4.1 Introduction

The National Trust informed the Cornwall Archaeological Unit in 1996 of the intention to undertake works in the area of the western approaches to the summit castle, priory and house. As loose gravel on the granite bedrock was becoming an increasing hazard for visitors, it was proposed that cobbled or paved paths be installed to guide people along preferred, safer routes. This would produce the additional benefits of relieving pressure from the increasingly scarce grassed areas, and reducing the generation of loose gravel and silt. It would also reduce the threat of damage to, or erosion of important archaeological remains.

It was agreed that CAU be commissioned to prepare a detailed survey of the western approaches so that the archaeological remains could be better understood, and so that new paths could be designed to cause the least disturbance to remains, and be as historically appropriate as possible. The medieval castle and priory were both reached from this side and it was felt that modern visitors, drawn up the Mount by the prospect of visiting the pile of historic buildings, would probably appreciate ending their climb by treading in the footsteps of soldiers, monks and pilgrims.

A measured plane-table survey at 1:200 scale was made by Peter Herring and Ann Reynolds in January 1997, using five stations and extending from the fortified Civil War gateway to the lower flights of the great western steps (Figs 24 and 25). As well as recording all archaeological remains, it included plotting all major natural features, such as 'steps' in the outcropping granite, and major boulders, to allow archaeological features to be properly understood, and to enable likely pathways across this uneven terrain to be reconstructed. Heights of features were measured with a ranging pole and detailed descriptive and interpretative notes were made. A number of black and white photographs were also taken.

4.2 Results

4.2.1 Further recording and interpretation of previously identified sites

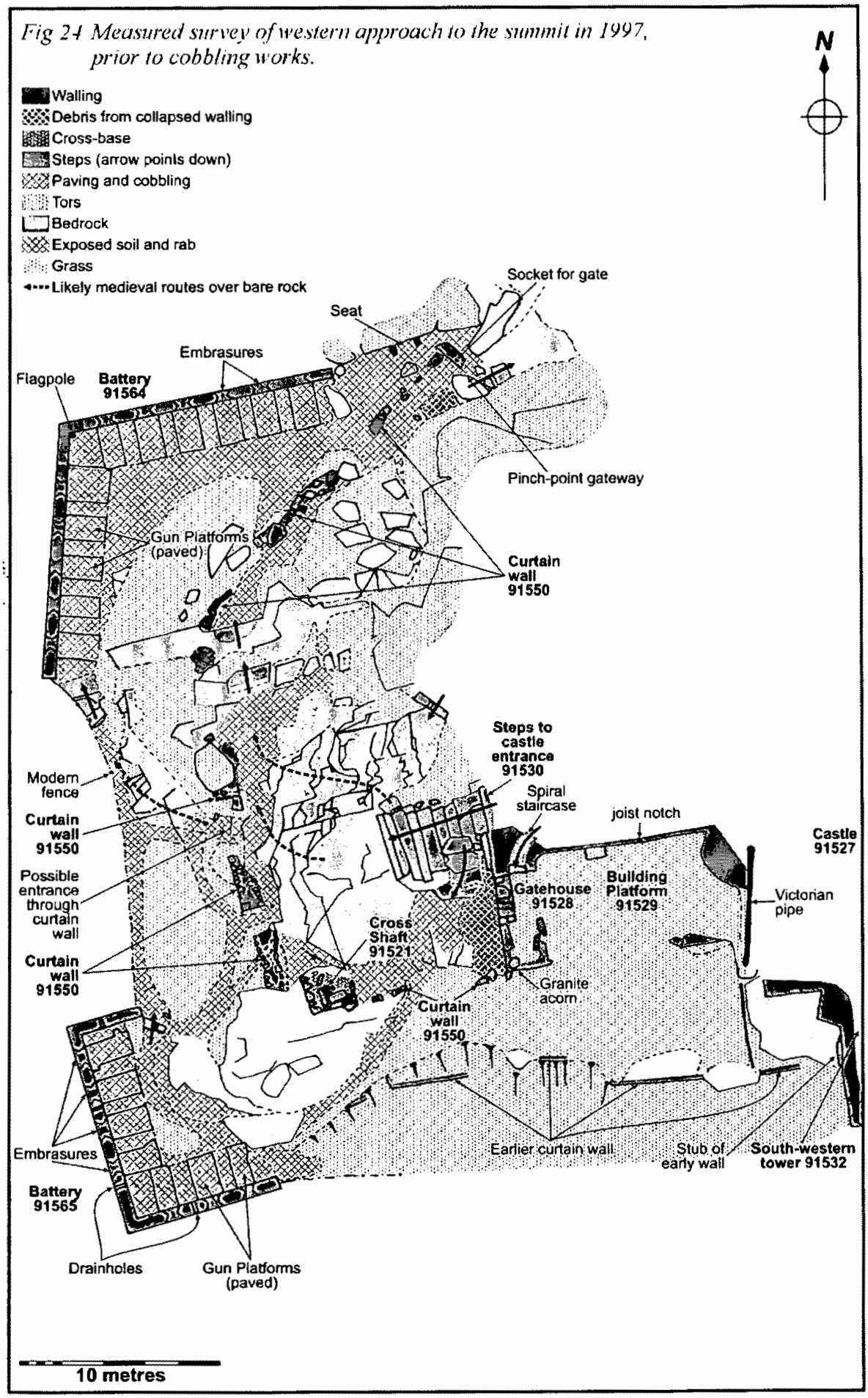
As well as satisfying the immediate management requirements, the survey improved our understanding of several sites described in the initial survey (Herring 1992). In addition, a number of previously un-noticed features were identified and recorded. The National Trust SMR numbers used in the 1992 report are followed where appropriate.

91521 Cross Shaft (See Herring 1993a, 74 for background.)

The shaft now leans west at *c*10° from vertical. Its base has a paved lower step, which on closer examination, with Ann Preston-Jones of English Heritage, appears quite likely to be original, and thus probably of the 14th or 15th centuries, if the octagonal section of the shaft is a guide to dating, and if the lantern cross now outside the church was originally fixed to it. A less well made higher step includes two re-used large plain-chamfered granite stones, and may have been built in an attempt to stabilise the shaft and correct an incipient leaning. Both steps were in place by 1731 when described by Dr W Borlase (see Herring 1993a, 74).

It now appears, from the measured survey, that the cross-base is secondary to the curtain wall (91550, below), as the base's southern side abuts a surviving stone of the curtain. We may imagine the cross standing in the shelter of the south-western corner of an open court defined by the curtain, the first overt symbol to be seen by visitors climbing the rough path to the castle and priory being of Christ crucified, a powerful reminder that the building being

Fig 24 Measured survey of western approach to the summit in 1997, prior to cobbling works.



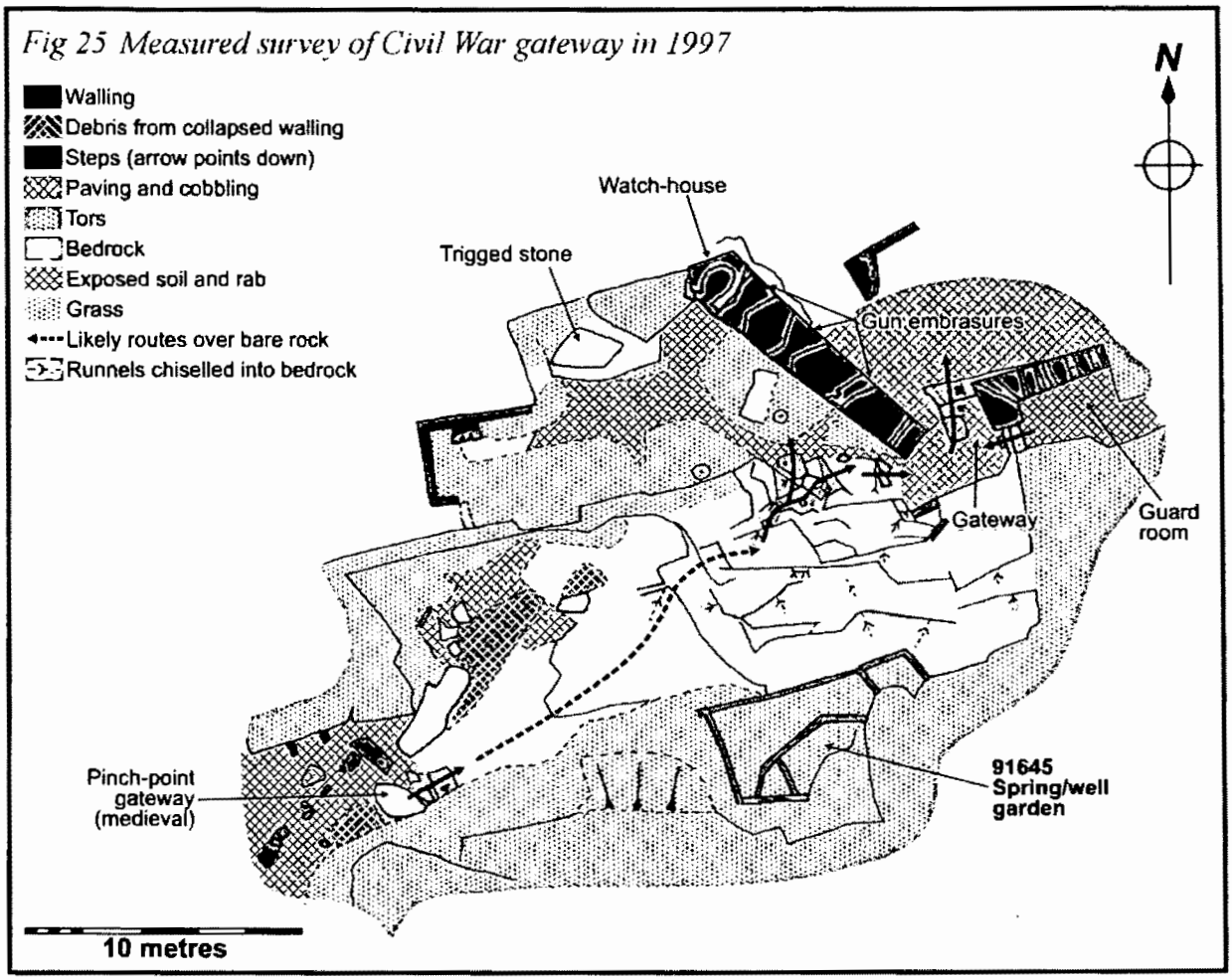


Fig 25 Measured survey of Civil War gateway in 1997

approached, with its massive western towers, was a priory as well as a castle.

The three drilled holes in the shaft's south face must, if the shaft has indeed not been moved, relate to a door or gate which was fitted to it *in situ*, and probably, therefore, related to the two lengths of curtain wall which meet 2m to its south-west. The gate presumably pre-dated the higher of the two steps, which would otherwise have been a considerable hindrance not only to any door's opening and closing, but also to passage through it. We would expect another wall to have related in some way to the cross shaft, to allow the door to close off entry into a space, but no trace of any was found.

It is reasonable to expect, however, that the reuse of a cross shaft as a door jamb post-dates the Reformation (mid-16th century) and such a date would also fit with a post-medieval reuse of chamfered stones in the higher step. Following on from this observation, is the likelihood that the curtain wall was either still upstanding or had been refurbished at the time of the shaft's reuse sometime after the Reformation. The most likely historical episode with which this may be associated is the Civil War of the 1640s when Sir Francis Bassett installed new fortifications on the middle and lower slopes of the Mount (see Herring 1993a). He is likely to have also improved those at the summit; the Royalists on whose behalf he carried out his works on the Mount did not baulk at destroying or damaging ecclesiastical remains, being also responsible for the demolition of the chapel on Chapel Rock and the use of a grave slab as the lintel of one of the main gateway complex's gun embrasures (*ibid*).

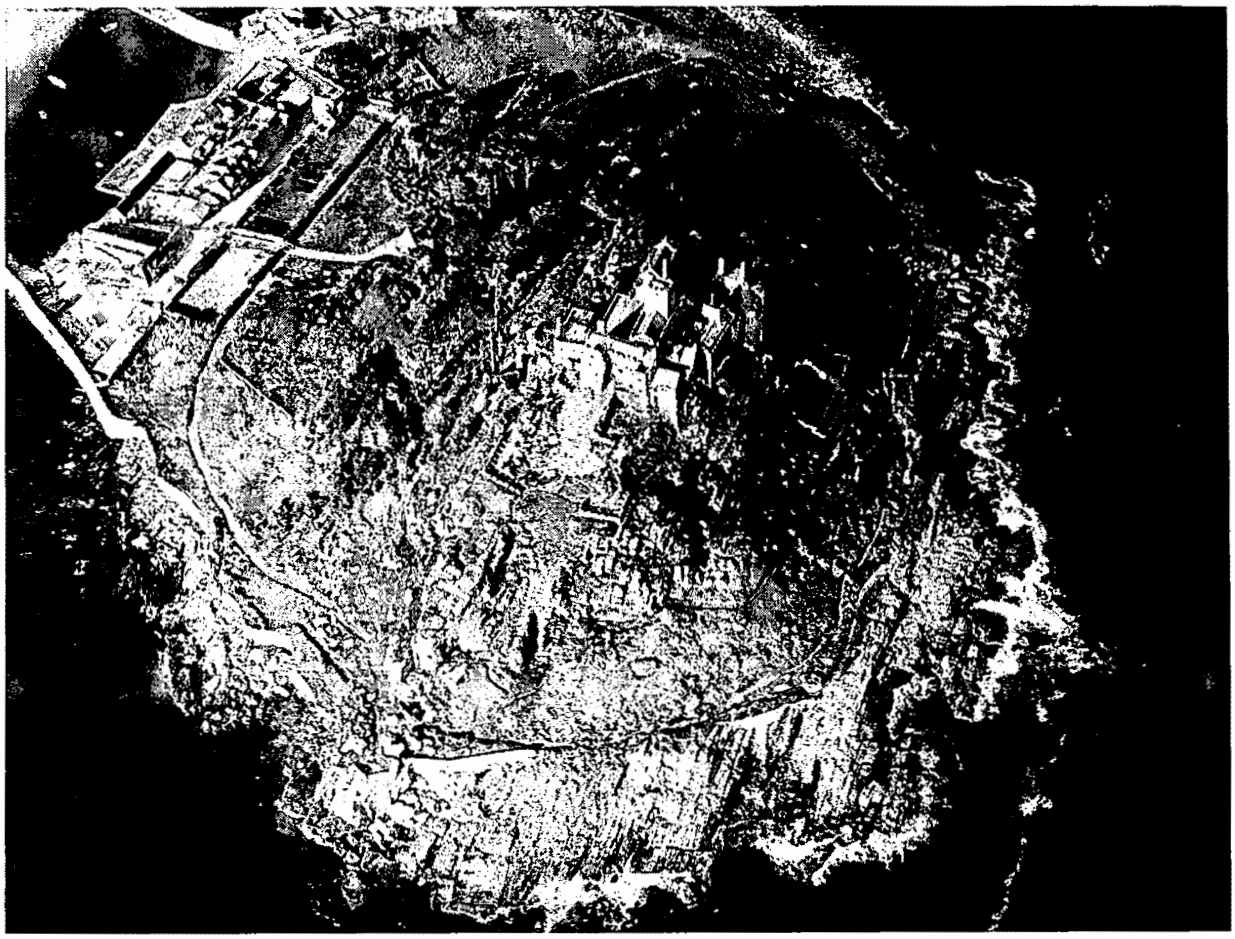


Fig 26 Western end of the summit showing area of survey including the 18th century batteries (CAU, F40/87, May 1993)

As noted above, the upper step was in place by 1731 when Dr Borlase visited the Mount, and it is likely to have been there for some time as the summit buildings were then in a state of disrepair, a product of neglect over a number of years (see Herring 1993a, Appendix VI). It is likely, then, to have been associated with the refurbishments of the first generations of the St Aubyns at the Mount, in the middle decades of the 17th century.

In summary, a rough sequence for the cross and its shaft appears to be:

1. Erection of cross on lower, paved step/base in the 14th or 15th centuries.
2. Loss of lantern or similar head, perhaps either at or shortly after the Reformation (mid-16th century).
3. Re-use of the shaft as a door jamb or gate post, perhaps in the Civil War (1640s).
4. Installation of the upper step after redundancy of door/gate, probably in the 1650s or 1660s.

The north-eastern side of the cross base is being seriously eroded by visitor pressure, and repairs are required. These should accompany a shifting of the pathway which cuts across the cross base here.

Fig 27 Visitor pressure to the west of the summit complex on a typical summer day

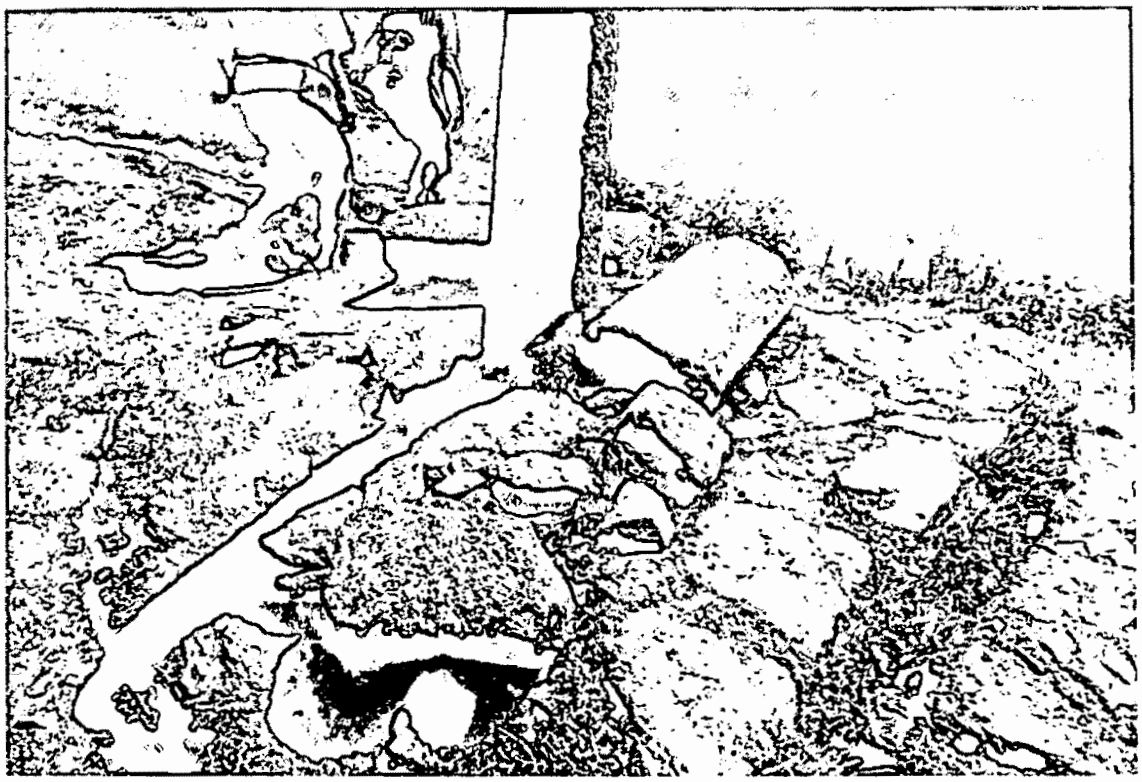


Fig 28 Visitor erosion and damage to the cross base (site 91521). Stones on the upper step have been dislodged and the lower paved step has lost its north-east corner (bottom left)

91527 Castle (See Herring 1993a, 80 for background.)

It now appears that there was greater chronological depth in the arrangements at the western approach to the castle than previously thought. Most important of the new discoveries made in 1997 was that of walling to the west of, and underlying the square-planned tower, now called Sir John's Tower, at the south-west corner of the present house (91532 in Herring 1993a). The western wall of the tower, which is undoubtedly a later medieval structure, was built across the footings of an earlier wall running east to west (see Fig 29). These footings, 1.5m wide and now 0.8m high, and made up of laid stones, with a slight batter to their south face, are aligned with the southern cliff of a natural shelf of granite which continues westwards for another 11.6m before turning north for 0.9m and continuing west again for around 5m. That the walling probably originally ran along this cliff edge is apparently confirmed by the existence of a 4m length of granite walling on its line a further 2.2m to its west found by Ann Reynolds. The stones in this unmortared walling were also laid and slightly battered.

It is conceivable that this newly discovered wall formed the southern sides of two conjoined rectangular buildings, but more likely, considering its unmortared, battered form and its slightly uneven route, that it was a curtain wall. Its relationship with the previously discovered curtain wall (site 91550, in Herring 1993a) is unfortunately unclear, the ground between the two features having been eroded away (confirmed in trench 2 of the pre-cobbling excavations; see below 5.3). It is possible that the newly found walling made a north turn either at its present west end (where there is a particularly large stone, possibly a quoin), or further to its west, and then ran up to and abutted curtain wall 91550, and was thus secondary to it. If so, it will have been partly defining a sort of outer court which will have included the

Fig 29 South-west tower of the castle (Sir John's Tower) overlying footings of an earlier curtain wall (immediately left of steeply battered buttress)

entrance to the ground floor of the ruined building (site 91529) lying against the south side of the steps to the castle's west door. Alternatively, the newly found wall may be a fragment of an earlier curtain which was made redundant by wall 91550 taking a line further to its north. Perhaps supporting this notion is the fragment of curtain wall found further to the east on the south side of the castle in 1992 (site 91553), which may also have lain outside a withdrawn curtain. In addition, it must be recalled that this newly recognised wall is early, pre-dating Sir John's Tower.

The inner curtain, 91550, will be discussed below. Here it may be noted that its primary relationship to the cross base appears to indicate a securely medieval date, perhaps as early as the 12th or 13th century if the cross base was originally associated with the 14th century lantern cross (site 91520) on the church's balustrade.

91528 Guard house / gate-house (See Herring 1993a, 81 for background.)
This building, addressing the main western flight of steps at a point where they meet and pass a prominent natural outcrop of granite, and regarded as a gate-house (Herring 1993a, 81), was planned at 1:200 as part of the survey.

The building's north-west corner, still standing 2.0m high, has a strong quoin of laid, roughly rectangular granite blocks which make good use of the natural corner of the outcrop. Immediately inside this corner of the building is a stone spiral staircase which retains four granite steps whose curve indicates that they will have impinged on the larger building immediately to the east with which this one is intimately associated. The stairs were entered through a 0.9m wide doorway whose jambs and threshold stone (0.5m high step) survive, neatly dressed. The western jamb, now 0.6m high, has a circular socket 0.4m above present ground level on its southern face which is 5 cm in diameter and 3.5cm deep, and presumably held the door's lower hinge.

A plain chamfered stone was reused within the building's west wall, suggesting a relatively late date for either the original structure or, perhaps more likely, a refurbishment of it. It should be recalled that similar later medieval dressed stones were reused in the Civil War gateway on the track up to the castle (site 91555), and a reuse of this gate-house in the same war must be considered likely; see also the discussion of the cross shaft (91521, above).

The relationship of the original building with the inner curtain, site 91550, is unclear. The curtain appears to be aiming for the building's south-western corner and a single laid stone abutting the building here may be a lone survivor of the curtain. If so, it seems to suggest that the building was primary to the curtain, which we have seen ought to be of the 14th, 13th or even 12th century. The building would thus be an integral part of the early castle. A spread of masonry debris to the west of the building, no doubt created during its partial demolition, appears to have been contained by the curtain wall, suggesting that the latter may have outlived the building.

We have seen, from the staircase, that the building was also closely linked to, and probably of one build with the much larger structure (site 91529) whose platform survives immediately to its east. Indeed, access to the ground floor of the gate-house was probably directly from this larger building.

The granite acorn decorating the south-western corner of the ruin, and probably placed there in the 19th century (see Herring 1993a, 81), has a single-piece top fixed with limey mortar

onto a one-piece base.

A more detailed 1:50 plan of this building is still required, as are elevation drawings.

91529 Building platform (See Herring 1993a, 82, for background.)
It is now felt that this large rectangular building was originally one with the gate-house to the west (site 91528, above). Its southern wall, as indicated by the single surviving grounder of granite towards its eastern end, is on line with that of the gate-house, and the spiral stone staircase of the gatehouse also clearly extended into the north-west corner of this larger building. Examination of the vertically-sided granite outcrop which was utilised for the great part of the building's north wall found a neatly cut notch for a central floor joist or beam 1.8m above present ground level, at the level of a convenient but apparently natural 0.2m wide shelf, which would have also been used to support the floor. The outcrop continues to rise for a maximum of another 2.2m above this shelf. We may imagine a building with relatively high first floor room(s) above fairly low ground floor rooms.

Entry into this building must have been either from the south wall at ground floor level, or from the gatehouse stairs at first floor level. There does not appear to have been a direct link to the main body of the castle. A low, flat-topped stone against the north side of the building, a little west of centre, may be natural (though possibly re-used as a base for a feature), as may the fissure in the outcrop immediately to its west which was infilled with stone walling.

Like the gate-house with which it is associated, the building will have been part of the early castle complex (see 91528, above). Although this building lies within the outer curtain of the castle, it must have been relatively vulnerable, compared with the square towers of the main pile, and a use as stables or similar, with a hay loft on the first floor may be possible.

Measured survey at 1:50, together with drawings of elevations, is still required.

91530 Steps to the west door (See Herring 1993a, 82, for background.)
The great flight of low granite steps leading to the castle's western door was partly surveyed; only the lower 10 steps were planned, leaving 29 unrecorded. Risers recorded varied from 0.18 to 0.23m high, and the paved treads are neatly built, cleverly incorporating areas of outcropping bedrock. The edge stones are often dressed square, and at least one is a reused plain-chamfered sill or lintel (fourth step up), indicating piecemeal repair. Two small stones on the north side of the steps may be remnants of the wall noted by Dr Borlase in 1762 (or referring back to *c*1725) (see Pool 1975, 36). Such a wall may have been shown schematically on John Norden's 16th century engraving (see Herring 1993a, 103, fig 32).

Dr William Borlase counted 42 steps in 1731 (Herring 1993a, Appendix VI). Either there has been a miscounting, or Borlase's number includes the steps which continue the flight within the west door; there seems little likelihood that there were others beyond the lowest, western, step. A flight of four broad low steps joined the main one from the south-west immediately west of the gatehouse (see Fig 24); three of these utilised natural steps in the bedrock, but the second from the bottom was built (now unfortunately partly eroded). They may be used to suggest the former existence of a gateway through the curtain's southern length.

91532 South-western Tower (See Herring 1993a, 86 for background.)
As noted above (91527), this tower, called Sir John's because it contains 'Sir John's Room', overlies the footings of a wall running east-west, which has been interpreted as an earlier curtain wall. Relationships with the adjacent towers to the north and east have not been

studied closely on the ground *(and detailed measured recording of the whole summit complex is still required)*, but it is possible, from studying the existing plan of the castle, to suggest that this may have been a secondary tower, and that the curtain originally ran on to be attached to the tower to the east. If so, the likely accommodation for the monks, already regarded as minimal (see Herring 1993b, 154), would have been further reduced for a part of the medieval period.

It was noted during the survey reported on here that the south-western quoins of this south-western tower are secondary repairs, incorporating two plain chamfered dressed window sills and, at the wall's base, a stone with a small circular socket. These repairs may most reasonably be associated with the mid-17th century refurbishments carried out by the first St Aubyns at St Michael's Mount, and can be used to confirm a medieval origin for the tower. They also draw attention to unstable ground at this corner, *and it was noted that pointing is required around the next to bottom stone of this quoin.*

91539 Victorian additions and alterations (See Herring 1993a, 90-93 for background.)
This survey did not set out to study the works undertaken under the direction of Piers St Aubyn in the 1870s, but a few details were recorded incidentally.

A cast-iron pipe runs down across partly built up ground to the south and west of the terrace outside the west door of the castle, passing through the east end of the building south of the steps (91529) and on to the steep southern cliffs and slopes to the south-west of the castle, its ultimate destination probably being the sump tank used in the terraced gardens (see Herring 1993a, 121, site 91582).

91550 Curtain wall (See Herring 1993a, 99-100 for background.)
This was a principal subject of the surveying exercise as the present pathways to the summit seriously disturb its remains in several places, through erosion by visitors. The curtain wall had been identified in the 1992 survey and was regarded as a medieval defensive outwork associated with the castle. The present survey adds detail to the previous description.

As it survives, the curtain, which is now discontinuous, curves in a south-western direction from a probable gateway at a natural pinch-point between two granite outcrops close to the western end of the main climb up the north side of the Mount, and along the outer north-western edge of a natural break in slope, formed of both bedrock and displaced boulders. This ends on an outcrop of bedrock, now just beyond the prominent cross shaft, and turns a right-angled corner to the east to run to the south-western corner of the gate-house beside the steps to the castle's eastern gate. It will have formed an external wall within which all visitors to the summit complex will have passed. There may have been a gate through its southern stretch, to give access to the ground floor of the large building east of the gate-house (91529, above), and there may also have been a gate in its western side above what is now known as Cromwell's Passage, the steep ascent on the west side of the Mount, although this is perhaps less likely.

The pinch-point gateway will have been a maximum of 2.6m wide, if it can be measured from the southern outcrop to the hole crudely drilled into a granite stone whose top probably originally lay flush with the ground surface. This ovoid hole, measuring 50 by 70mm, and being 50mm deep, probably served as the socket for a pin at the base of a gate. That the pathway ran to the south of it is confirmed by the survival of a partly eroded, 0.1m high, built step immediately to its south-east. A spread of small and medium stones (0.3m maximum

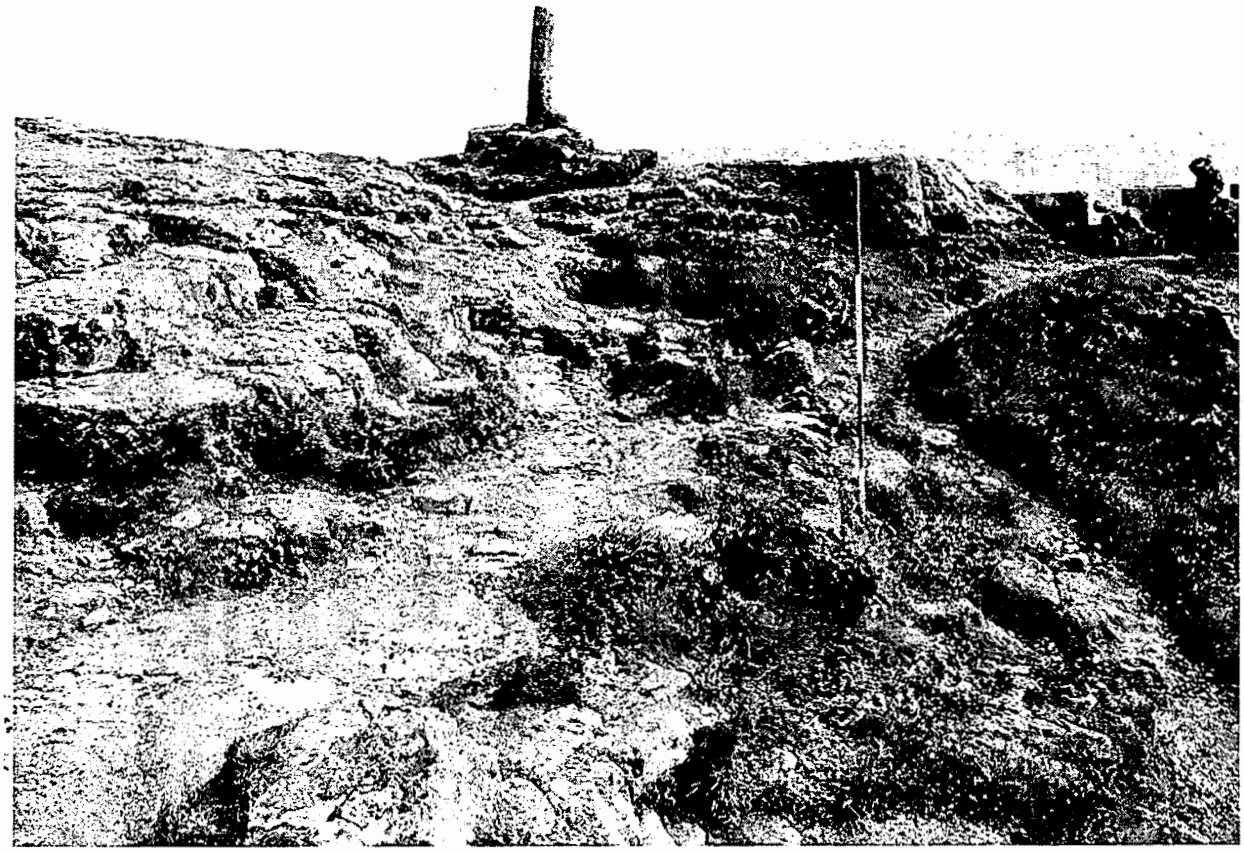


Fig 30 Curtain wall (site 91550) to the left of the ranging pole and running away to end to the right of the cross shaft.

dimension) just beneath the southern outcrop may be the collapsed remains of a built gatehead to which the gate will have closed. We must also envisage a wall built to seal the gap between the holed stone and the northern outcrop. Once through this gateway, visitors will have followed a path which hugged the south-eastern side of the curtain wall which is described next.

Commencing at the pinch-point gateway, the curtain's first 16.5m now comprises a stony bank incorporating a number of large stones, some probably *in situ*, and not exceeding 0.5m high and 1.2m wide. (This stretch was planned at 1:200 by Ann Reynolds and Dick Cole as part of the recording exercise preceding cobbling.) Beyond it to the north-west is at least one much larger natural boulder which may have been incorporated into the wall. One of the principal footpaths still runs inside the bank, climbing unevenly as it does so, until reaching a line of three orthostats (to 0.6m high) which will have formed part of the inner face of the wall immediately before a major step in the granite bedrock, now 0.8m high with traces of at least one built step below it. Judging from the disposition of the natural steps in the granite to the south of here, the principal pathway may have moved a little distance away from the curtain to the east. In fact there may have been two pathways up the bedrock to reach the flight of built steps to the west door, the orientation of which suggests that the southern route was the designed one; there is a small patch of cobbling on this route beside a large, 1.1m high, boulder, utilised in the curtain. The wall is particularly poorly preserved on this stretch, comprising several small spreads of stones, and to the south of the large boulder there is a gap

of 3.5m with just one likely wall stone in place. This is where there may have been a gateway above Cromwell's Passage. Certainly it is on a 'desire line' which modern visitors use, causing considerable erosion to the ground here, and no doubt contributing to the loss of the wall's fabric, and the solitary stone is unusually large, possibly being the base of a gateway's jamb. A gate would be nicely placed in relation to the flight of steps, but appears to introduce unnecessary vulnerability to the design of the summit defences.

South of this point lies the best preserved stretch of the curtain wall. Two neatly built stone faces, to 0.3m high, contain a core of smaller stones and earth. Its width is surprisingly uneven, varying from 0.9 to 1.3m over this 5.3m long length, and may suggest that the wall was built fairly rapidly. Unfortunately, this stretch is subject to some of the most intensive erosion as visitors climb up from the lower path between the two 18th century batteries, and the wall has been cut by it into two parts. The curtain ends at the north side of a granite outcrop where the lack of a foundation has seen the complete loss of the wall.

The curtain turned a right-angled corner at this outcrop, and is next seen as a solitary inner facing stone to the south of the cross-base. Although the relationship is not certain, it seemed in the field as if the cross-base abutted the curtain here. Five more inner facing stones survive a little to the east of the cross-base and there are possible fragments of an outer facing stone (or an *in situ* boulder used as such) just west of the south-west corner of the gate-house, towards which the curtain appears to aim. Again, the relationship with the gate-house is uncertain but this alignment and the existence of a stone abutting the house may suggest that the curtain is secondary.

It is possible that the curtain wall also continued a short way to the north-east of the pinch-point gateway, to end on the natural cliff above the platform to the north-west of the later Civil War gateway. A spread of stones in a matrix of rab (the granite-based subsoil often used as a mortar) continues the general line of the curtain wall and has itself a clear edge on its north-western side against which a darker, more humic soil lies. This would guide visitors to the gateway and prevent people slipping around the northern side of the main curtain and gate.

91555 Civil War Gateway (See Herring 1993a, 105-107 for background.)

This is 'ye great stone plattforme by ye higher watch house' built by Sir Francis Bassett between 1642 and 1645, 22m downhill to the north-east of the pinch-point gateway (see Herring 1993a, 105). It was described in some detail in 1992 (*ibid*), and only minor additions are made here, although the plan is the first detailed representation to be made of it.

Within the gateway itself is an area of relatively modern paving using imported slatey stones, a few bricks and some poor cobbles. The guard room to the east of the gate is built on a granite outcrop and is reached by four steps up to the western doorway.

To the north-west of the gate is the principal defensive wall with its three cannon embrasures and murdering hole, and with the watch-house at its north-west end. The smallest, south-eastern embrasure incorporates a re-used plain chamfered stone, and the murdering hole is 1.4m high above internal ground level. The north-western embrasure's outer lintel is a re-used grave slab including a cross carved in relief.

On the cliff to the west of the watch-house the smaller of two large boulders (2.6m long, 1.8m high) appears to have been deliberately trigged up onto three small stones, the south side of

Fig 31 Civil War gateway (site 91555) from above, to the south, the same orientation as Fig 25

the stone lifted 0.5m above the bedrock. It is suggested (by Ann Reynolds) that the boulder may have been trigged in readiness for rolling down the slope onto any attacker clambering up the Mount's northern slope below. It need not relate to the Civil War complex and may be of an earlier period. The platform to the west of this was extended by 4.0m by the building of a 2.8m high revetment wall; this was no doubt part of the Civil War defences, preventing or making difficult, an assault on the rear of the gun platform.

Within the gateway, climbing over an extensive area of bare granite, ran the pathway which the complex controlled and which will have almost certainly pre-dated it. This is the only realistic route up the northern side of the Mount towards the pinch-point gateway in the medieval curtain wall, and the several steps and other modifications of the bedrock are more likely to be medieval than of the 17th century. They include five built steps, similar in form to those within the higher curtain wall, with carefully laid edge stones and cruder rough paving or cobbling behind. These link natural steps in the granite and enable the medieval route to be identified. As would be expected, this is still the principal route taken by modern visitors. Supplementing the steps is a network of chiselled runnels or drains that will have kept the potentially slippery granite relatively dry, and in the winter ice-free. Water issues from a spring uphill to the south onto the granite and is guided across it by these devices.

91564 Battery (See Herring 1993a, 111 for background.)
As for the Civil War gateway, the survey is the first detailed measured record of this probably late 18th century battery. The following adds detail to the 1992 description.

The flagpole at the angle of the two walls is *c*8.0m high. Embrasures are 0.45m above the battery's floor level and are symmetrically splayed about centre points, narrowing from 0.7 to 0.6m. The cannon stand on platforms of ashlar granite paving, neatly slotted where the possibly secondary western wall meets the northern. Cobbling fills the spaces between the standings. A runnel chiseled across the northern gun platform of the western side takes water to a 0.3m high drainhole built into the base of the wall; there is another towards the west end of the north wall. The southern four cannon on the western side are decorated with crests comprising crosses, bosses and birds on top, the St Aubyn family crest; all the rest have no crests. All cannon are on modern carriages.

It seems reasonable to suppose that the medieval curtain wall was partly robbed to help build the rubble lower parts of the walls of this battery, or the smaller curvilinear battery which we know preceded it (see 8.10, below).

A flight of five steps, to 0.2m high, making use of natural outcrops of granite leads a path up and away from the southern end of the west side, towards the south-western battery.

The 1809 OS field drawing of the defences of Mounts Bay records this north-western battery having eleven four pounder guns.

91565 Battery (See Herring 1993a, 113 for background.)
As for the northern battery (91564, above), this is the first detailed plan to be made. Most of the gun platforms are rectangular but a few are irregular, as planned. There are two drain holes built into the western wall and one in each of the southern and northern walls. Again it seems likely that the builders of this battery, or its predecessor, robbed the medieval curtain wall to obtain their stone. The three southern cannon have GR and a crown, and the most northerly of the western has N2 on it. All cannon are on modern carriages.

Two steps lead up into the north-eastern corner of the battery from the path linking it to the north-western battery.

The 1809 OS field drawing of the defences of Mounts Bay records this battery having seven four pounder guns.

91642 Stone-splitting (See Herring 1993a, 164 for background)
Three instances of cutting granite using the early, pre-1800, wedge splitting method were identified to the north-west of the castle. Two were from outcrops of bedrock, and the third, to the east of the north-west battery, was from a boulder. This last was unfinished, the three narrow slots, into which the broad iron wedges will have been inserted before being hit with a sledge hammer, showing clearly how they were formed using chisels. As noted in the 1992 survey (Herring 1993a, 164), there are no examples of the drill marks associated with the later plug-and-feather method of splitting. It was suggested that this may have been due to a decision, presumably taken by the St Aubyn family around the turn of the 19th century, to cut up no more of the beautiful rocks of the Mount (*ibid*). It may be noted in this respect that in November 1812 William Jenkin wrote to John Vivian of Truro that 'We cannot get stone to wall it [an ore store in the harbour village] on the Mount' (RIC, HJ/1/11). Clearly there is plenty of stone on the Mount but Jenkin could not get permission to quarry it.

91645 Spring/well garden (See Herring 1993a, 166 for background.)
A wall had been noticed containing this spring in 1992, but the present survey provided the first opportunity for a close inspection. A pattern of four uneven-sized beds, defined by low

narrow granite walls, 0.2m wide and up to 0.2m high was created. These will have been wet gardens, in a dark, north-facing position, and no doubt were planted with specialist flowers and shrubs. The form of the walling suggests a late 19th or early 20th century date, and this garden was probably part of the landscaping undertaken around then (see Herring 1993a, 120 and 126). The water from the spring ran northwards across the bare granite and towards the Civil War gateway, guided on its way by the runnels chiselled into the rock.

4.2.2 Other features recorded in 1997

Just 2.5m within the Civil War gateway is a small patch of modern granite walling blocking a natural gap in the stepped granite bedrock. It seems to have been designed to prevent visitors taking a route close to the gardens by the spring (91645, above), and may be seen as a possibly late 19th/ early 20th century attempt to guide visitors along a preferred route.

A seat formerly stood in front of a large granite outcrop east of the north-western battery; its two dressed granite supports remain in place and act as a measure of the extent of soil erosion in their vicinity. The concrete footings for the supports, originally flush with the ground level, now stand 0.1m proud.

The survey also recorded all the present pathways to the west of the summit, to help inform the design of a rationalised system. Original historical routes are still well used - many people walk along the path inside the medieval curtain wall, and others use that between the two late 18th century batteries, now defined to the west by a modern rope fence on galvanised posts. Unfortunately the pressure of people milling around, resting after their climb up the north face, waiting to gain access to the castle, or enjoying the views across Mount's Bay, has helped create the more intricate pattern of linking pathways, many of which cross the curtain wall or the cross-base and are causing significant damage to important and delicate remains.

5 TRIAL TRENCHING PRIOR TO THE SUMMIT COBBLING *by Ann Reynolds*

5.1 Introduction

The archaeological survey of the western summit, reported on above (section 4) preceded the establishment of sections of cobbled and paved paths to attempt to direct the flow of visitors along the least damaging routes to the west of the summit complex.

It was considered possible that the ground-breaking necessary to prepare beds for cobbles and paving stones would disturb important archaeological layers, particularly within the medieval curtain wall, and provision was made for three days of trial excavation by two people (Ann Reynolds and Dick Cole) in 1997. This targeted two areas which were to be taken down to the depth of 150mm required by the masons, and also included the more detailed, larger scale planning of the most north-easterly section of the curtain wall, within the pinch-point gateway, which was to be partly buried beneath a raised cobble path (see Fig 32 for precise locations of trenches, and extent of wall survey).

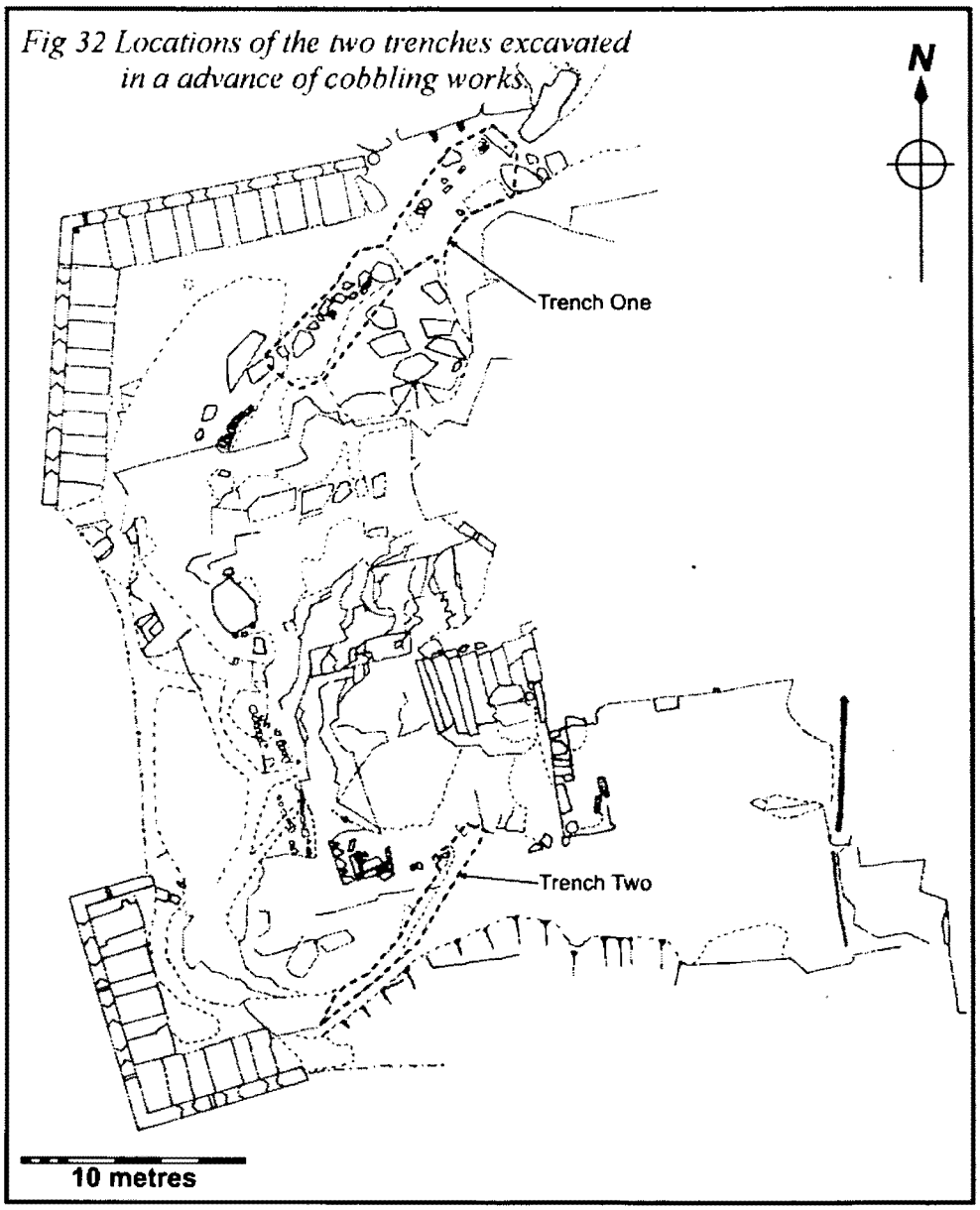
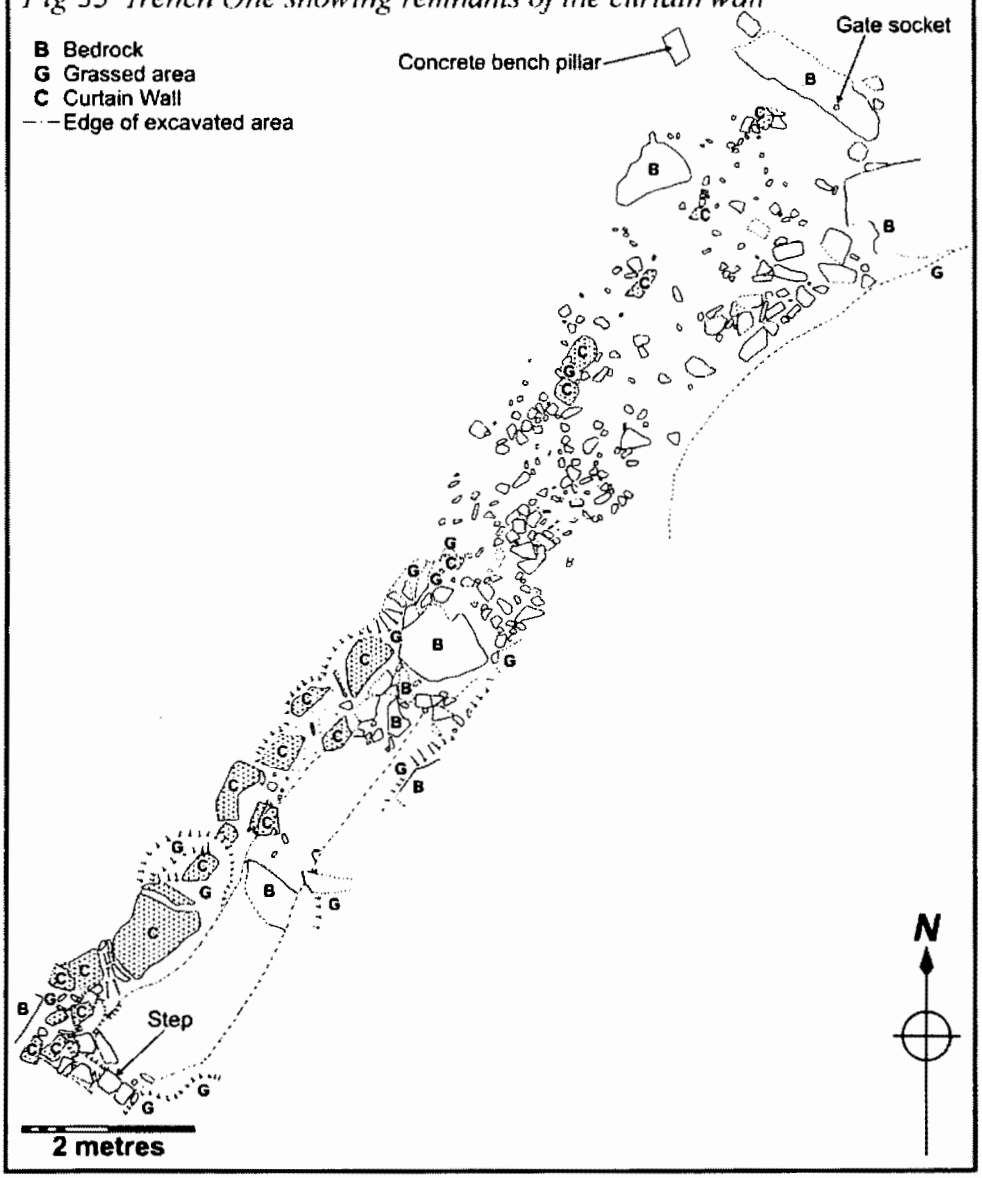


Fig 32 Locations of the two trenches excavated in a advance of cobbling works

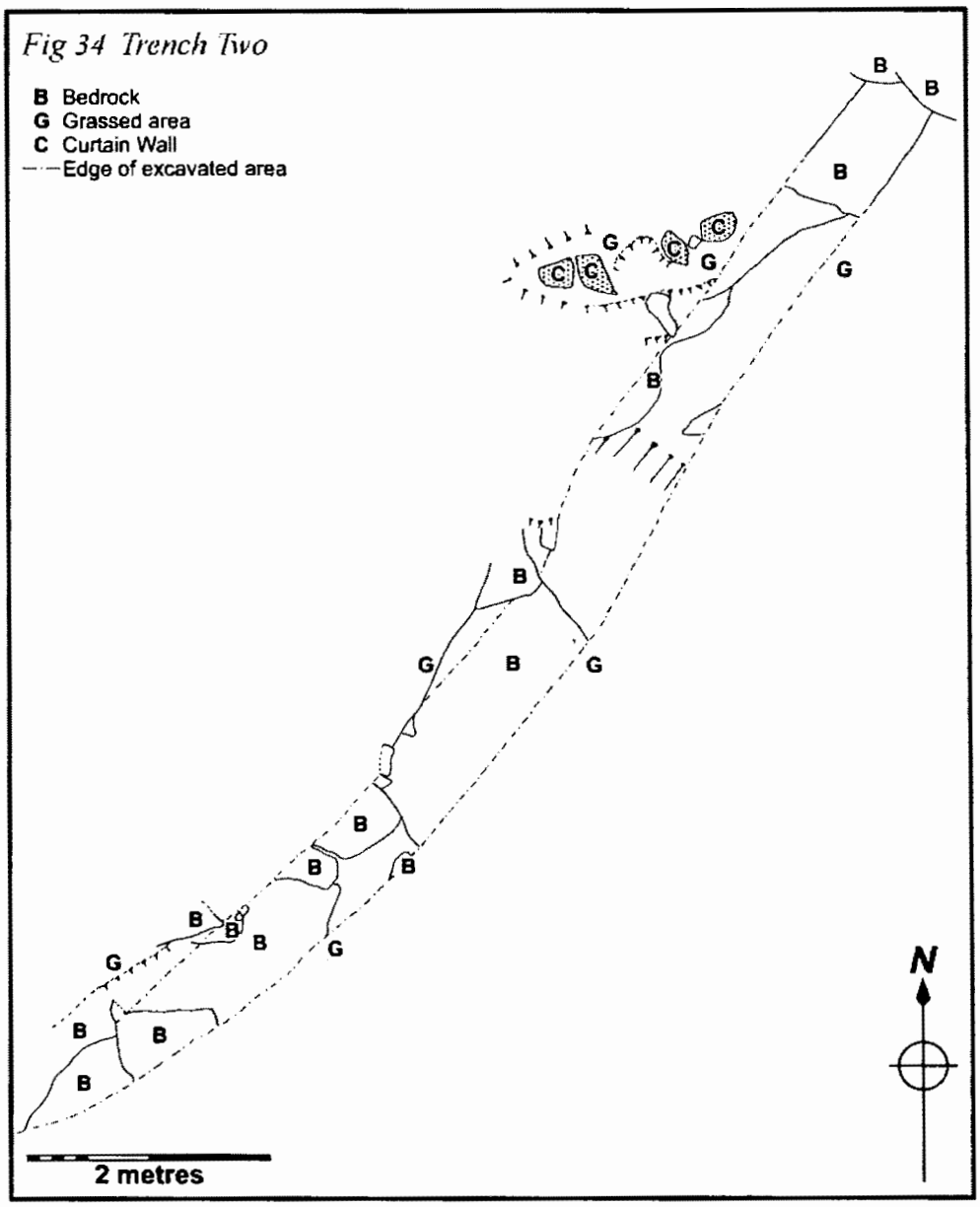
Trench 1 (Fig 33) was 6 metres long and an average of 75 centimetres wide. It followed part of the probable original pathway to the western door and was confined within the curtain wall. It consisted of a single deposit of dark brown silt [context 1], which was present throughout the 150mm depth of excavated soil, except for the north-east side of the trench which contained bedrock at or near surface level. No traces of paving were found and the silt contained sweet wrappers and a plastic watch strap suggesting that it was the result of recent visitor erosion from the upper slopes of the path. Artefacts from all periods from later prehistory to the modern were found in this layer. The prehistoric and early post-Roman artefacts are particularly important for our understanding of the history of the summit area.

Fig 33 Trench One showing remnants of the curtain wall



As part of the work on trench 1, a detailed plan was drawn of the trench and the remaining fabric of the curtain wall, all the way to a socketted stone lying flush with the original ground level at a pinch point between two natural rock outcrops. It is possible that this represented a controlled gateway onto the Mount's summit. The narrowness of the pathway due to the constricting nature of the wall combined with an effective use of natural rock outcrops would have provided efficient control of all access to this section of the Mount. As with today's

access to this area, one cannot imagine any animal following this path with ease, effectively creating a pedestrian entrance. This use of natural outcrops and demarcating walls is a feature of many of the native Welsh castles of the 13th century, providing effective natural defences and limiting all but pedestrian traffic. This comparative example would support Herring's view of a date as early as the 12th or 13th centuries for the curtain wall (1993a, 99). The comparatively poor state of preservation of the wall, backed up with no pictorial depictions of this feature (with the possible exception of Norden's engraving of *c*1580), suggests that the wall was deliberately razed. This may well have been with the intention of creating better, less constricted access to the western entrances.



5.3 Trench 2

Trench 2 (Fig 34 was located on the southern side of the western summit. It was not on the line of a known pathway, but followed a small eroded gully created quite recently by the sheer number of visitors seeking a route to the castle. The trench was 11 metres long and averaged 0.7m wide. At its north-eastern end, it was perceived to cut through part of the curtain wall, so excavation commenced with the view to preserving any buried remains *in situ*.

Excavation revealed a total of three contexts: topsoil [2] which was cut back by the archaeological excavators to create a uniform path width for the cobblers; a light brown silty deposit [3] similar to that found in trench one, and a dark grey gritty layer [[4] which represented the interface between the silty deposit and natural bedrock. Seventy percent of the length of the trench touched bedrock almost at the level of the ground surface. Where the silt deposits reached a depth of 150mm (the base of the trial trench), it was envisaged, given the nature of the surrounding topography, that bedrock was not far below this.

No remains of the curtain wall were found dissecting the trench. It appears that the remaining pieces of curtain wall on this side of the summit (see Fig 34) are foundation blocks sitting directly upon bedrock. This highlights the vulnerability of the remains and the need to consolidate or protect this walling wherever possible.

A number of finds were recovered from trench 2. Whilst the artefacts themselves are not particularly diagnostic and represent years of visitor erosion, the mere presence of these artefacts sheds light on past occupation of the summit of the Mount.

5.4 Finds Report

by Carl Thorpe, Henrietta Quinnell, John Allan and Peter Herring

See Appendix 8 for detailed finds list prepared by Carl Thorpe. The number of artefacts retrieved cover a wide span of time, and reflect the main periods of occupation on the Mount, from later prehistory to the modern. The presence of early medieval imported Mediterranean amphorae sherds, however, is the first direct confirmation that there was a trading settlement here during the post-Roman period (for fuller discussions see Herring 1993a and 8.5, below.)

5.4.1 Prehistoric material, *by Peter Herring*

Ten sherds of later prehistoric pottery were recovered from trench 1. All have been identified by Henrietta Quinnell, see above (2.3.3). Two, of fabric B, with a granitic admixture clay, may be Later Bronze Age in date (P14A and P14B), and two others, of fabric D, gabbroic with added temper, are probably of the Later Bronze Age/Early Iron Age period, in the 1st millennium BC (see 2.3.3 for discussions). Six sherds are of fabric C, gabbroic ware, and may be either later prehistoric or Roman although one (P13), a rim sherd of a bowl with conical flange, is certainly of a late Roman Cornish form, probably from the late 3rd or 4th centuries AD, but conceivably from the early post-Roman period (see Henrietta Quinnell's comments in 2.3.3, above).

A seventh sherd of fabric C ware (later prehistoric or Roman period) was recovered from the lowest layer in trench 2 [context 4].

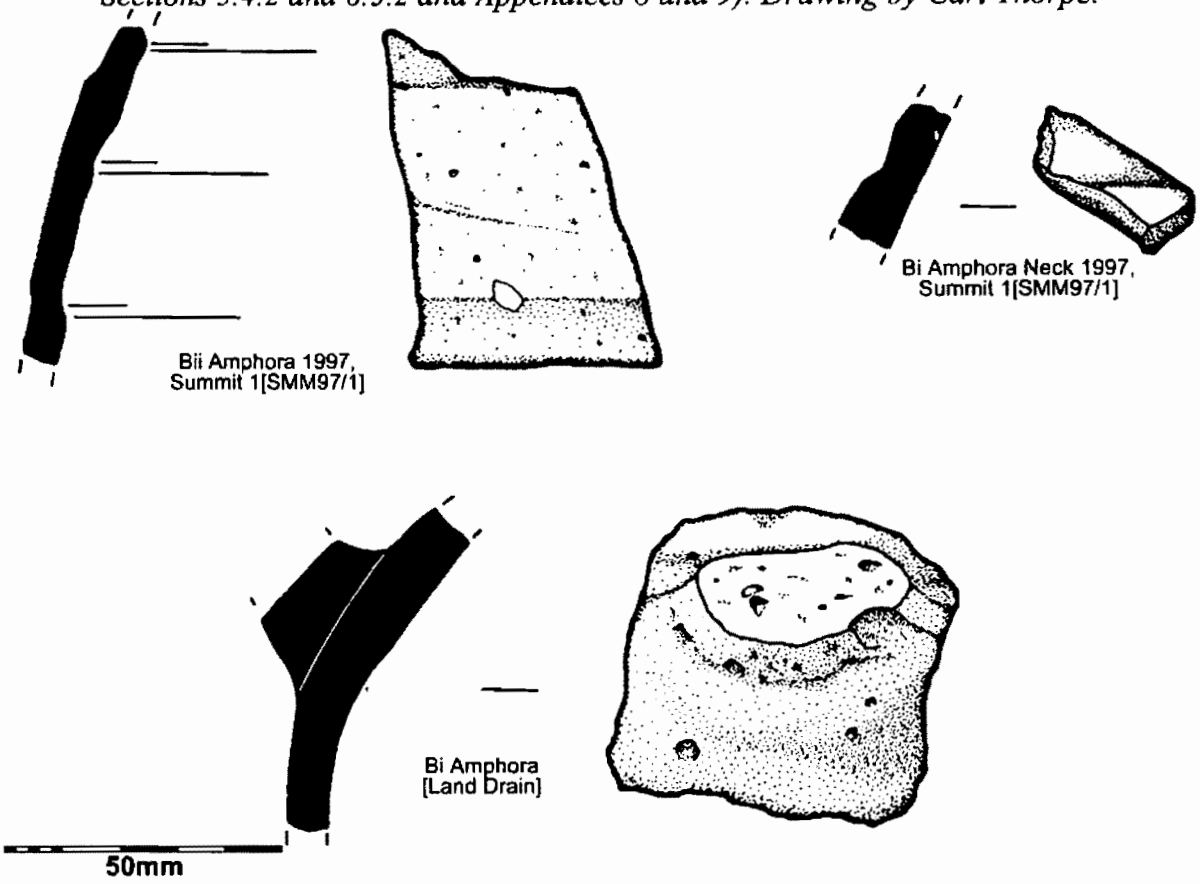
A single struck flint flake was also found in unstratified deposits.

These are the first prehistoric and Roman period artefacts to have been recovered from near the summit.

5.4.2 Imported Mediterranean wares, *by Carl Thorpe*

Six sherds of post-Roman amphorae were recovered in trench 1; three were co-joining pieces of the same Bii amphora, and the others came from Bi and Bv amphorae. The following are brief introductions to each form.

Fig 35 Sherds of post-Roman amphorae from summit and land drain (for which see Sections 5.4.2 and 6.3.2 and Appendices 8 and 9). Drawing by Carl Thorpe.



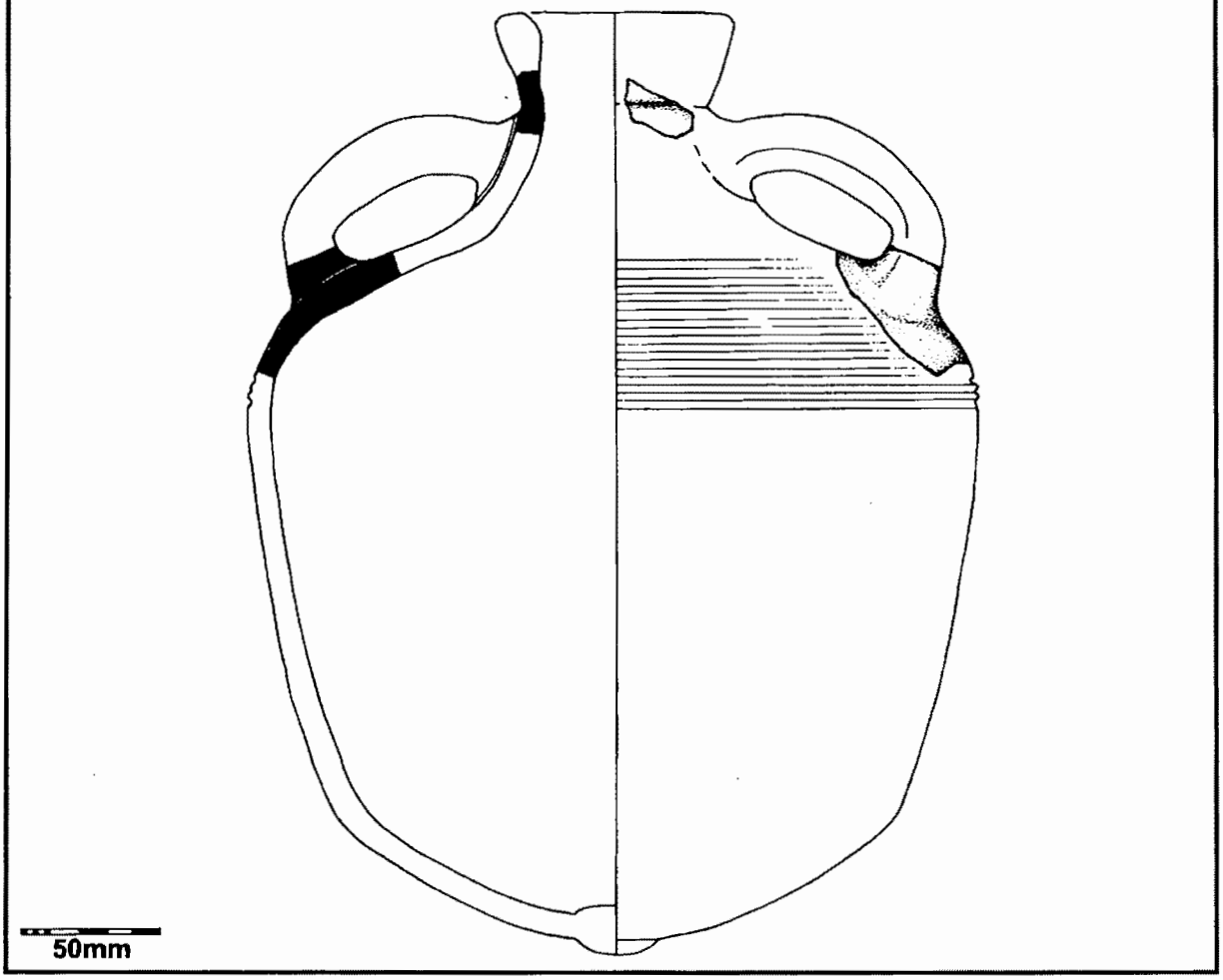
Bi Amphorae, Form 43 (Peacock and Williams 1986) Figs 35 and 36
A globular amphora with distinctive grooving around the shoulder. A widespread form not fully provenanced although its known Mediterranean distribution and its petrology suggests an origin in mainland Greece, Crete, and the wine-producing Greek islands. Though a fairly long-lived form, current from the early 5th century AD to the late 6th, the peak of its use and distribution was reached around the mid-5th to mid-6th centuries, ie between AD 450 and 550.

Bii Amphorae, Form 44 (Peacock and Williams 1986) Figs 35 and 37
A tapering carrot-shaped amphora. Known from a number of kiln sites on the coastal plain of Cilicia, in south-eastern Turkey. It is not known what they contained but the olive oil industry of the Antioch region may be involved. Form of amphora is that dating from about AD 450 to 600 (Peacock and Williams 1986).

Bv Amphorae
These are still not provenanced. Their cylindrical, metre-high forms closely resemble those of Tunisian *Africana Grande*, Peacock and Williams form 34, a type that has been closely linked to the production and transportation of olive oil. Fabric analysis, however, indicates an Eastern Mediterranean source.

See 8.5 for discussion of the implications of the discovery of these amphorae sherds.

Fig 36 Reconstruction of ***Bi*** *amphora showing where the two sherds from the summit and land drain (Fig 35) would have fitted. Drawing by Carl Thorpe.*



5.4.3 Medieval ceramics (1066-c1400), *by Peter Herring, based on comments by Carl Thorpe and John Allan*

Twelve sherds of Cornish Medieval Coarseware, a form current from the late 12th to the end of the 14th century (see Carl Thorpe's notes in 2.3.5, above), were found in the summit works, one in trench 1, three in trench 2 and eight unstratified.

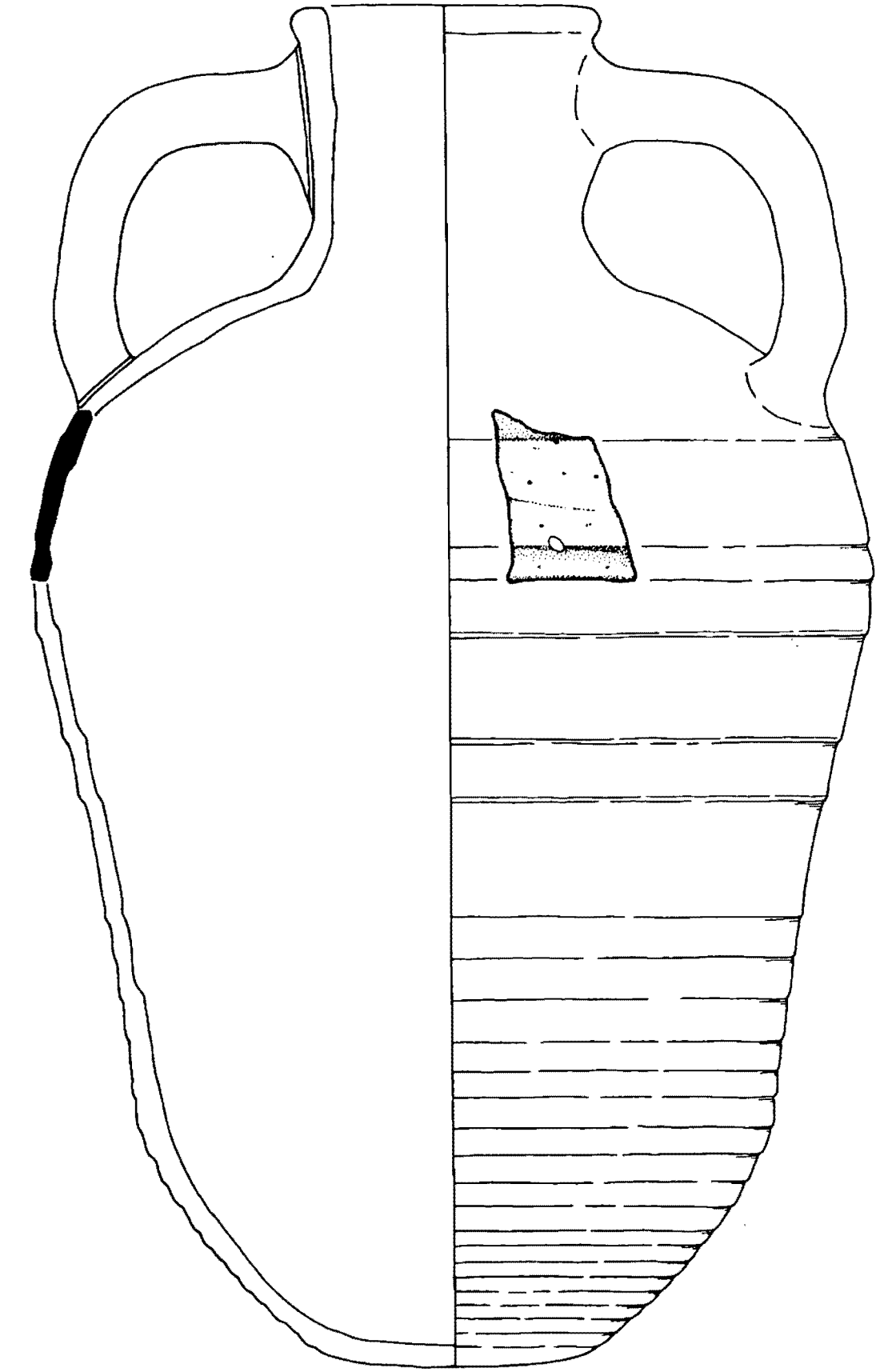
5.4.4 Late medieval ceramics (c1400-c1550), *by Peter Herring, based on comments by Carl Thorpe and John Allan*

Nine sherds of late medieval pottery were found in the summit works. A single sherd of Late Medieval Glazed Red Earthenware was found in trench 1 (see 2.3.6 for discussion of this and the following wares by Carl Thorpe), and a single sherd of Cornish Late Medieval Coarseware, Lostwithiel Ware was found in trench 2. Seven sherds of undiagnostic Cornish Late Medieval Coarseware were also found, four in trench 2 and three unstratified.

5.4.5 Post-medieval ceramics (mid-16th to 18th centuries), *by Peter Herring, based on comments by Carl Thorpe and John Allan*

Single sherds of Cornish Post-medieval Coarseware, Lostwithiel Ware, with incised line decoration (16th century), and salt-glazed Frechen stoneware were found in trench 2 (see 2.3.7 for discussion of these wares by Carl Thorpe).

*Fig 37 Reconstruction of **Bii** amphora showing where the summit sherd (Fig 35) would have fitted. Drawing by Carl Thorpe.*



5.4.6 Modern ceramics (19th and 20th centuries), *by Peter Herring, based on comments by Carl Thorpe and John Allan*
A sherd of Modern White Glazed Stoneware was recovered from trench 1 (see 2.3.8 for discussion of this ware by Carl Thorpe).

5.4.7 Clay tobacco pipes, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
Four clay pipe stems, were recovered, one from trench 1 and the other three unstratified.

5.4.8 Tiles and bricks, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
Eight fragments of 18th or 19th century red brick were found, four in each trench. A fragment of medieval ridge tile was recovered from context 4 in trench 2, and two unstratified sherds of late medieval glazed ridge tile were also found.

5.4.9 Glass, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
A single shard of 18th or 19th century green bottle glass was recovered from trench 1.

5.4.10 Metalwork, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
Two undiagnostic and undated fragments of iron were recovered from trench 1. Roy Powell, the Head Gardener on the Mount was encouraged to use his metal detector on the spoil heaps beside the twpo trenches. He found a number of lead musket and pistol balls as well as a set of early metal dentures.

5.4.11 Bones, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
Thirty-six animal bones were found; 29 in trench 2, and the rest unstratified. A single unstratified cockspur was also found.

5.4.12 Roofing slates, *by Peter Herring, based on comments by Carl Thorpe and John Allan*
Two possibly medieval cut and shaped roofing slates were found in trench 2.

6 LAND DRAIN WATCHING BRIEF

6.1 Introduction

As part of sea-wall repair works on the Mount, the National Trust inserted a land drain in September 1998 on the low north-western slopes, immediately to the south of the recently refurbished boat house. According to early 19th-century maps, this area contained ore hutches, walled enclosures used for storing copper ore from the mines east of Marazion prior to its shipment to the copper smelters of south Wales. Late 19th century landscaping works had obscured surface remains of these hutches (they were not shown on the 1908 OS 1:2500 map) but it was felt that below ground remains of them might survive. The results of the 1995 sewer watching brief (see Section 2) also suggested that important artefactual evidence relating to the village area might be gathered during the cutting of the *c*3.0m deep land drain trench.

It was considered that platforming for the hutches and the early modern landscaping probably meant that well-preserved early stratigraphic remains were unlikely to be found. The results of two trial pits dug in March 1997 by Geotechnics (drawings and analyses supplied by Richard Bellamy) indicated that the western end of the proposed trench (Trial Pit 7) would cut through redeposited material containing gravel, cobbles, small boulders 'and occasional red brick, slate and glazed pottery fragments' down to the bottom of the 3.0m deep trench. Sides of the proposed trench were also likely to be unstable and there would therefore be serious Health and Safety problems involved in entering it to investigate exposed sections. At the eastern end (Trial Pit 8) there was no apparent dumping of material from the village and instead the pit cut through apparently natural head or rab beneath a 0.5m deep topsoil.

An archaeological watching brief was organised by Richard Bellamy and the Cornwall Archaeological Unit. Fieldwork was carried out by Peter Herring of CAU, supplemented by the Godolphin Company team, especially Malcolm Early, and by Richard Bellamy and the Head Gardener Roy Powell (who ran his metal detector over the substantial spoil heaps).

The trench was dug by mechanical excavator through very loose, made-up ground comprising dumpings of material brought from elsewhere in the village area. It was not considered safe enough to clean back and draw the trench's sections and rapid notes were made by Peter Herring of the dumping stratigraphy in the western part. Malcolm Early later recorded and photographed two walls (one attached to the other) that were exposed in the central part of the trench, sketch-plotting them, and the edges of the trench on to the 1:200 site plan. Numbers of unstratified artefacts were collected from the spoil (see finds report, 6.3).

The land drain watching brief revealed useful information about the Mount's history in three forms: firstly, the remains of the ore hutches, secondly, further evidence relating to the 19th century landscaping of the area immediately uphill of the village, and thirdly, a number of important, if unstratified, artefacts.

6.2 Features

91640 Ore hutches

By superimposing an enlarged version of the 1876 OS 1:2500 map onto the site sketch-plan (Fig 38), it is possible to establish that the walling recorded by Malcolm Early was part of the curving south-eastern perimeter wall of the ore hutches together with the third dividing wall from its south-west corner. The random rubble walling was vertical, of small and medium-sized irregular stone, with some reused brick, and with lime and sand mortar over a rab based

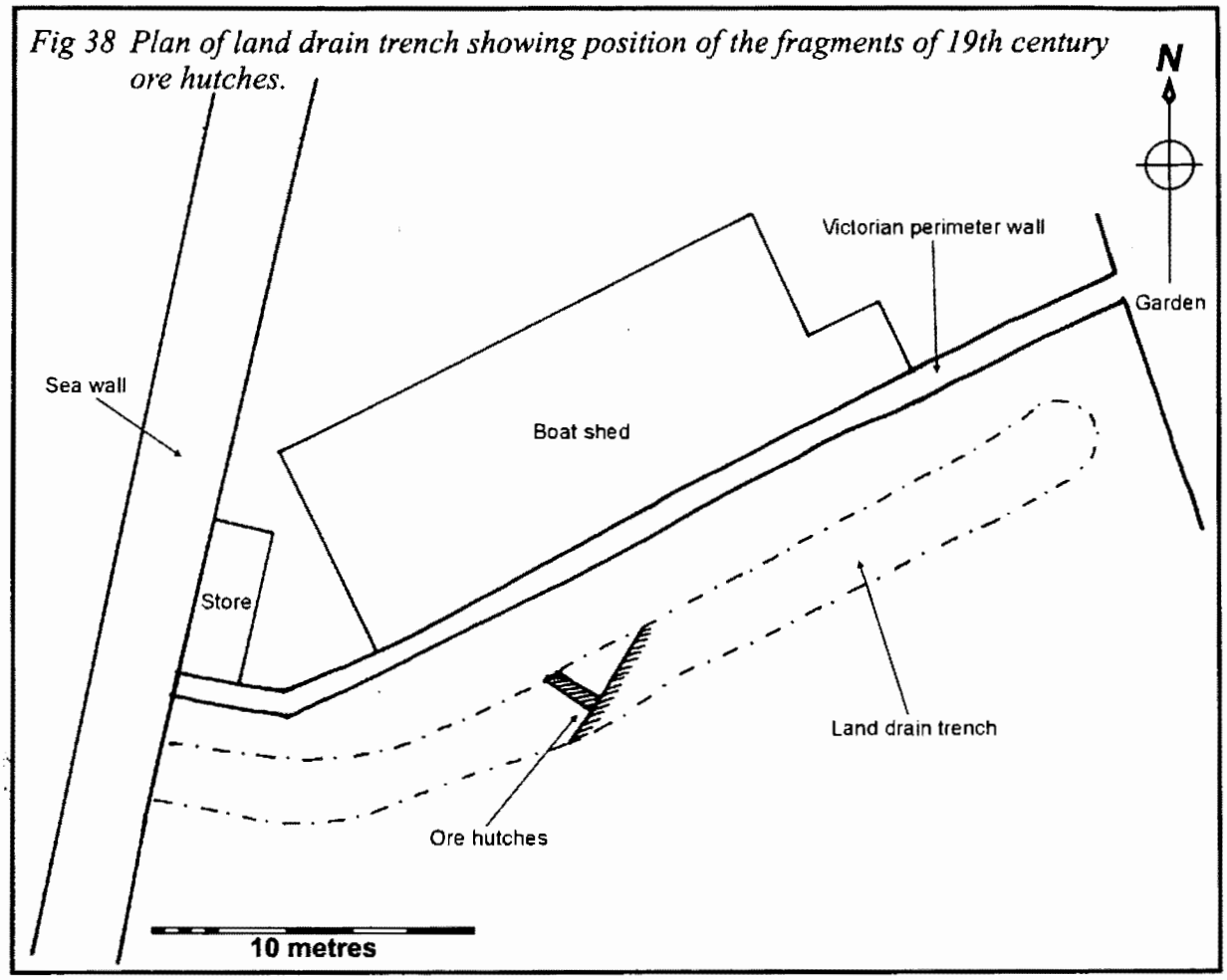


Fig 38 Plan of land drain trench showing position of the fragments of 19th century ore hutches.

mortar. It stood to at least 1.8m high and was narrow, just 0.4m wide, suggesting that it never took the load of a roof. The walls were built directly on to the natural rab, confirming that any earlier archaeological layers in this part of the village had been cleared away to prepare a platform for the hutches.

No ore hutches were shown on the *c*1808 OS 2-inch drawing of the Mount but a letter from William Jenkin of Redruth to John Vivian Esq of Truro dated 27.11.1812 indicates that some were in place by the latter date: 'We went to the Mount to fix a spot for ores – apart of a boat builders' yard. We cannot get stone to wall it on the Mount. We can at once send Wh Neptune ore there if you require. The Crown Co and Daniell and Co have plots there also. Some ore skimpings might be brought from West Wheal Fortune and Wheal Neptune to lay on the floor to make it hard and good as a lime one' (RIC, HJ/1/11). In May and June 1813 ores from West Wheal Fortune and Wheal Friendship mines respectively were transported to plots on the Mount (*ibid*).

By 1827 another Jenkins letter noted that 'the Mount [was] made little use of late, but probably best not to abandon it as a shipping place – expenses are low and carriage of ores from Wheal Rodney, Wheal Caroline and Wheal Speedwell to elsewhere would give extra expense' (RIC, HJ/2/9). All the copper mines mentioned were within three miles of the Mount (see Dines 1956, Map IV). (Information from the Jenkins letters kindly supplied by Alasdair Neill.)

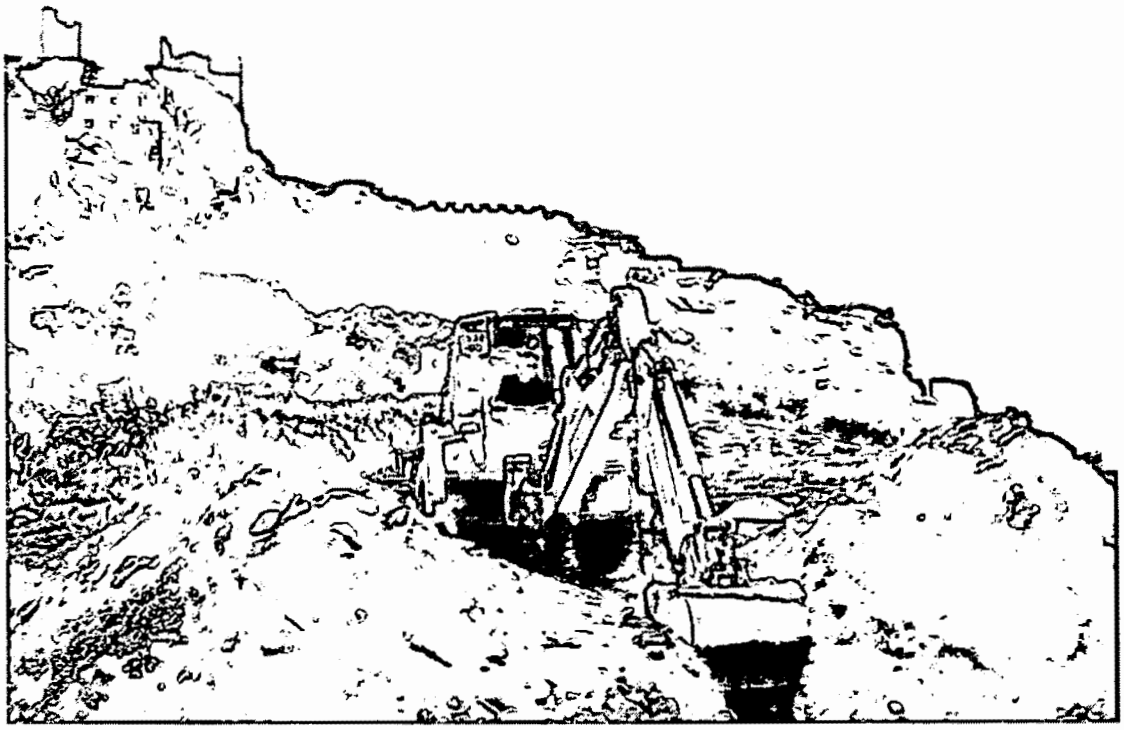


Fig 39 Excavation work in progress on the Land Drain

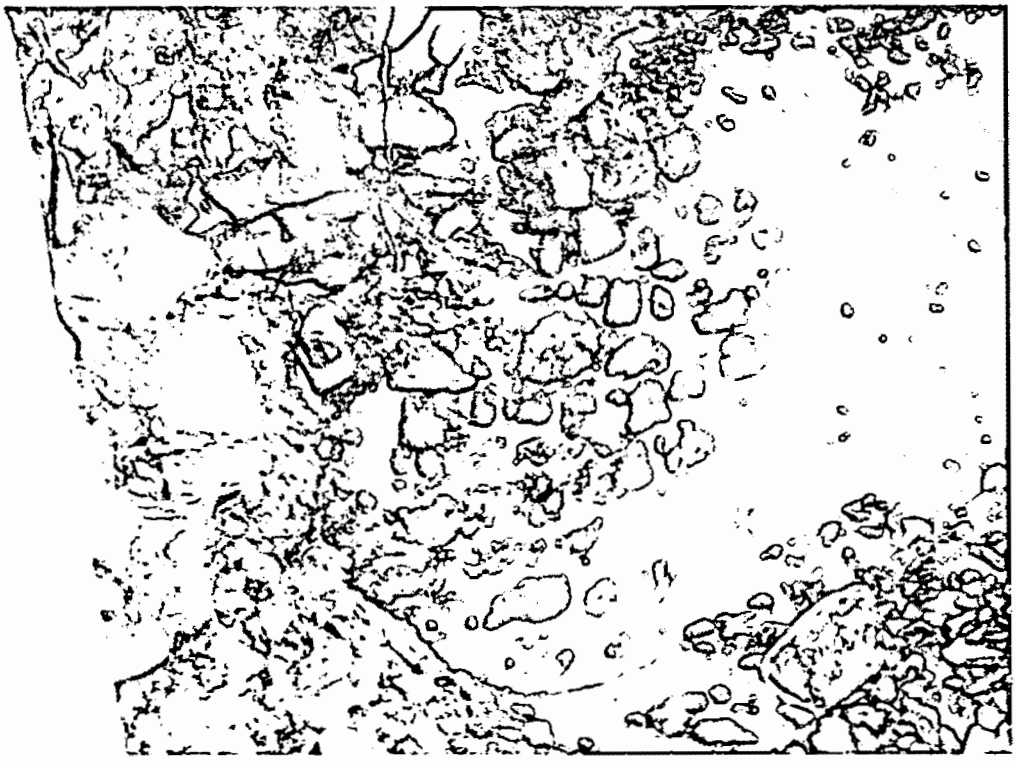


Fig 40 Wall of ore hutches (site 91640) revealed in land drain

The 1834 estate map (held in the manor office, Marazion) records that the hutches were then the property of the Neath Copper Company. Green copper staining was visible on the faces of the walls. Unfortunately no drawing or photograph has yet been discovered which shows the hutches either in use or prior to their partial demolition and submergence in spoil. We rely on the 19th century maps and the fragment recorded by Malcolm Early as a record of their form and scale.

Landscaping works

It is likely that the main landscaping work in this part of the Mount took place shortly after the building of the straight perimeter wall (with gate and lodge) in 1877 (see site 91612, Herring 1993, 147), but the highest layers of dumping (the top 0.4m or so) seem to be mid-20th century (on the basis of artefacts, including coins, noted within them). The exposure by the trench of the inner, eastern face of the sea wall seems to confirm this two-stage landscaping process, with traces of concrete pointing repair being visible above a line *c*0.25m below the present soil line.

The material dumped in the 1870s appears to have derived from elsewhere in the village area, judging from the large quantities of fairly modest post-medieval artefacts, and building materials (bricks, slates, ridge-tiles etc). Amongst these were also found a few pieces of much earlier pottery and metalwork (discussed below). We can be fairly confident that these too will have been shifted to these dumping layers from sites within the village, rather than from, say, the summit of the Mount.

6.3 Finds

See Carl Thorpe's list of the artefacts recovered from the land drain trench (Appendix 9).

6.3.1 Prehistoric material

Three flint waste flakes and a granite saddle quern (trimmed and reused as a building block) are probably prehistoric in date. The saddle quern is a particularly useful indication of a prehistoric settlement site in the vicinity of the present village as it is unlikely that people will have transported a heavy quern stone any great distance for reuse.

6.3.2 Post-Roman and early medieval

Of at least equal significance are the one certain and one probable sherds of early post-Roman amphorae. These should be seen as confirming that the amphorae whose sherds were found in 1997 at the summit (see 5.4.2) found their way there from a harbour settlement in the vicinity of the present village. A rim sherd of grass-marked Sandy Lane style 1 pottery, probably from the 11th or 12th centuries, may be used to reinforce other indications (notably the 10th century human burial) that there was a settlement hereabouts in the period, before the priory was established in the early 12th century.

Sandy Lane Style 1 'Grass Marked' Ware

Hand made, fabric generally gabbroic often with large amounts of feldspar. Firing is variable (often plain bodysherds are indistinguishable from prehistoric pottery), but generally well fired with distinctive 'grass marking' - the impressions of chopped grass on the base, sometimes continuing over the exterior and even at times reaching the rim.

Two forms of vessel dominate, a squat, flat-based, vertical-sided cooking pot, and a flat-

based platter or dish with very low sides (often absent completely). Cooking pots frequently have vertical pulling marks on the interior close to the rim which is often roughly beaded and slightly everted. Finger marking, and smoothing using a knife or spatula on the exterior is common. Decoration is rare, but where present consists of 'nicking' of the rim with the back of a knife, fingernail marking also around the rim, or moulding the rim with the fingertips to form a 'pie crust' ornament (Thomas 1963; 1991).

Dating is still debatable (Preston-Jones and Rose, 1986), though Thomas assigns an 11th to 12th century date for this ware (Thomas 1991).

6.3.3 Later medieval, post-medieval and modern ceramics

Three sherds of later medieval (13th or 14th century) coarseware were identified, and 29 sherds of post-medieval (16th to 18th century) pottery including two of Lostwithiel coarseware with painted line decoration, and three sherds of imported pottery: two of Beauvais ware and one of Delft ware. Large numbers of modern (19th and 20th century) ceramic sherds included Nottingham saltglazed stoneware medicine bottles and white glazed stoneware.

6.3.4 Metalwork

Later medieval copper alloy metalwork recovered by Roy Powell include a decorated book clasp and a strap end. There are other scraps of copper alloy, most of which will be post-medieval, and an early modern buckle, a portion of a small bell, buttons, hinges, washers etc.

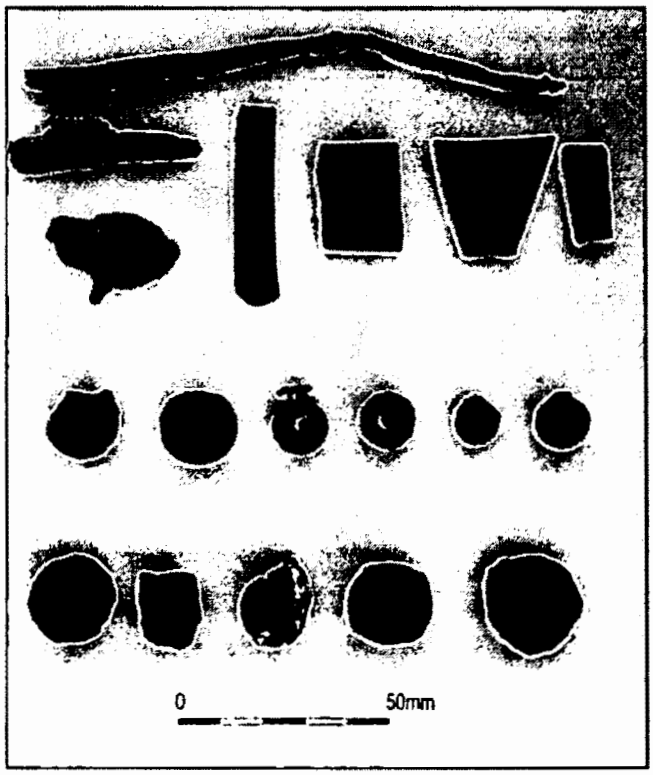


Fig 41 Remnants of the manufacture and use of lead musket and pistol balls found in the Land Drain trench. At the top are fragments of lead drains and window frames cut to roughly the desired volumes. The middle row has cast balls, unfinished, the musket balls larger than pistol balls. That at the left end is a used musket ball which has been partially cut, presumably for the manufacture of other balls. The bottom row has five balls, all distorted or flattened by impact.

Most important among the metalwork, however, are the remains of lead pistol and musket ball manufacture. It is clear from the collection of scraps of lead sheeting, window lead, sounding and fishing weights etc, and the evidence of their being cut up and reduced, together with the saving of discharged musket balls (part flattened by impact), that people on the Mount were hastily preparing ammunition, suggestive of the situation during a siege. We know that the Bassets had fortified the harbour in the early years of the Civil War, and it seems reasonable to associate this musket ball manufactory with the final siege in April 1646.

6.3.5 Human bone

A fragment of human mandible was also collected. Although unstratified, it is possible that this originated in a grave similar to that cut by the sewer (see 2.2.4). It may, therefore, be early medieval in date.

6.3.6 Bones

Some of the numerous animal bones collected had been either cut or sawn by butchers. A crab claw and the jaws and vertebrae of fish were also recovered.

7 OTHER ARTEFACTS FROM ST MICHAEL'S MOUNT AND CHAPEL ROCK

7.1 Introduction

In addition to the sewer trench, the two summit trenches, and the land drain trench, there have been several other sources of artefacts from both the Mount and Chapel Rock, the large greenstone outcrop beside the causeway. These include those collected by Roy Powell, the Head Gardener and Darren Little on the Mount (7.4), Simon Barnecutt while undertaking the cobbling at the summit (7.2), Cathy Parkes and Peter Herring from an eroding cliff section on the eastern side (7.3), Peter Herring from eroding soil on Chapel Rock (7.5), and the late R.J. Noall from the seabed near Chapel Rock (7.6) (see Fig 42 for locations). The results of a watching brief carried out in 1996 by Carl Thorpe of CAU on the continuation of the sewer from the Mount to Marazion, reported on fully elsewhere (Thorpe 1997), are also summarised here (7.7).

NB The hoard of copper weapons, spear heads, axes and swords wrapped in linen, recorded by William Camden in his *Magna Britannia* (1586), as being found at the bottom of the Mount (see Herring 1993a, 59, site 91501) was a misinterpretation by Camden of John Leland's report of *c*1540 which stated that the objects, almost certainly a later Bronze Age hoard, were found near the Mount in St Hilary's parish (see Penhallurick 1986, 216; where it is suggested that the find spot was in Marazion Marsh).

7.2 Summit cobbling

While clearing the loose silty soil which had built up behind the north-eastern summit battery (site 91564) in preparation for the laying of cobbles in 1997, Simon Barnecutt of the Godolphin Co carefully collected all artefacts in finds bags. He kept separate the finds from particular zones. See Appendix 10 for finds list. Apart from a couple of later medieval sherds of coarse ware all the artefacts were post-medieval. This lack of early medieval or prehistoric material may suggest that the medieval curtain wall and any earlier pathway on or within its line effectively contained any earlier activity. The collection probably includes material discarded by 18th and 19th century gunners as well as by later visitors to the Mount.

7.3 Eastern cliff section

During the initial archaeological fieldwork on the Mount in 1992, Cathy Parkes and Peter Herring inspected a 48m long exposure of the eastern cliff face (see Herring 1993a, 62-63, site 91508; the whole of the rest of the island's cliff face is obscured by post-medieval sea defences). A number of artefacts were collected, their positions being noted on a 1:50 section drawing. The 'plough soil' in which they lay may be equated with context 1 of the sewer trench, a cultivated soil. Finds were all either medieval or earlier and included a sherd of gabbroic pottery with a Roman form (see **P11** in 2.3.3) as well as six sherds of Late Bronze Age or Early Iron Age pottery. A small pale green and pitted shard of late medieval glass was also collected.

7.4 Garden beds and metal detecting finds

While working in the southern gardens on the Mount, the Head Gardener, Roy Powell, has collected numerous sherds and other artefacts. He also found several metal objects with a metal detector, but no longer uses this machine on the Mount as doing so contravenes National Trust bye-laws. Darren Little has also used a metal detector to locate a number of lead musket and pistol balls. General find-spots of these have been plotted by Darren (Fig

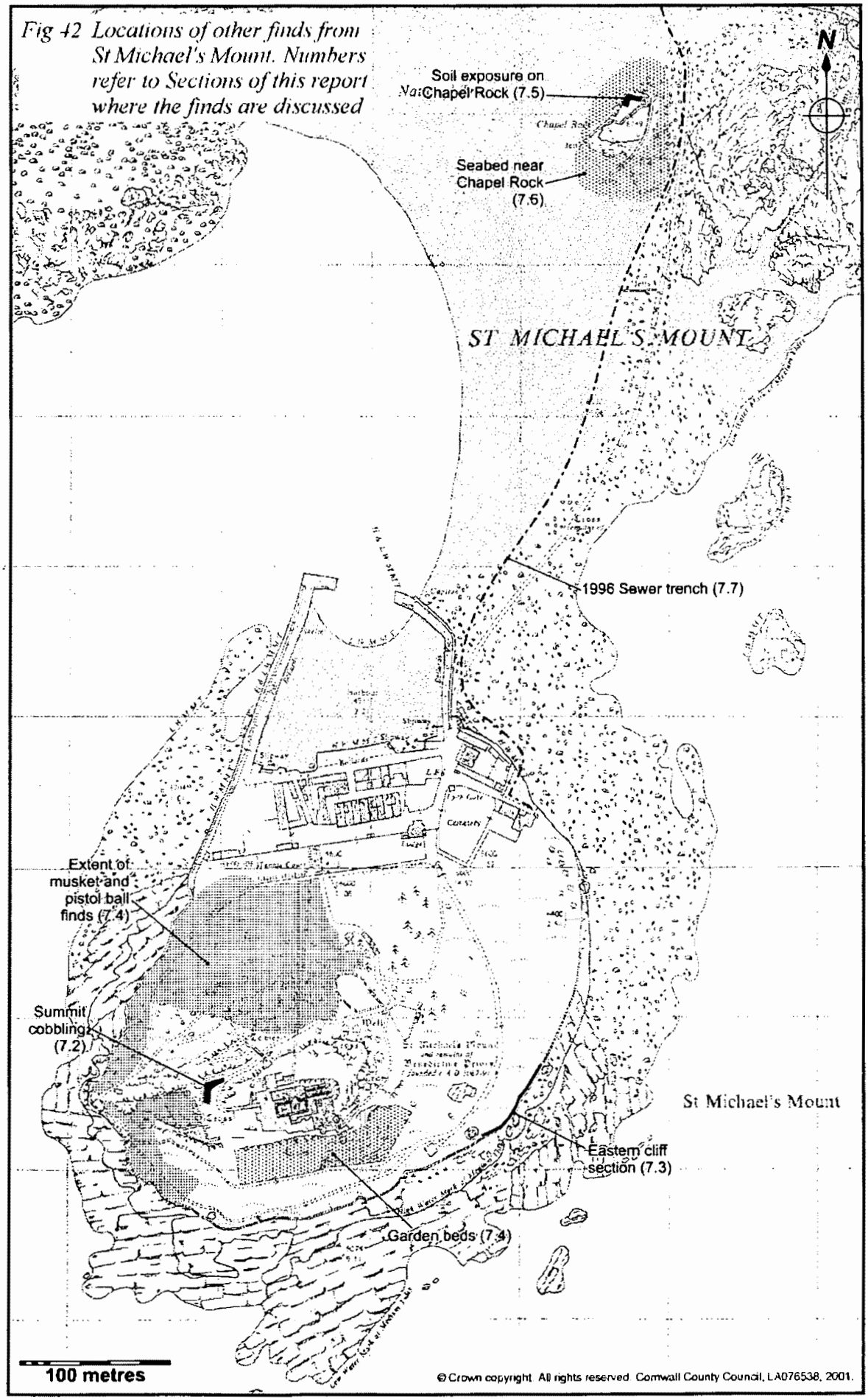


Fig 42 Locations of other finds from St Michael's Mount. Numbers refer to Sections of this report where the finds are discussed

42). They cluster on the slopes north of the watch tower gateway, at the base of Cromwell's Passage, and along the southern edge of the Mount, within the breastwork (see also Herring 1993a, 117). They probably indicate the areas of most intensive military activity on the Mount in early post-medieval times, including in the Civil War.

7.5 Chapel Rock

Fragments of Delabole roofing slate, presumably derived from the late medieval chapel of The Blessed Virgin Mary, were noted eroding out of the shallow soil on Chapel Rock in 1992 (Herring 1993a, 77, site 91523). Subsequent visits by Peter Herring have produced a small number of pottery sherds; the artefacts being revealed by the continuing erosion caused by visitors.

John Allan inspected the sherds and recorded three thin-walled wheel-thrown late medieval Cornish coarsewares (his 'B' wares), and three gabbroic pre-medieval sherds. The latter are of interest in indicating prehistoric activity on that part of the mainland nearest the Mount and beside the causeway. Chapel Rock was still attached to the mainland as late as the 17th century (Herring 1993a, 76).

7.6 Seabed near Chapel Rock

A well-preserved stone vessel has until recently been stored in the island shop on the Mount. Attached to it by a modern brass chain is a card label bearing the following legend:

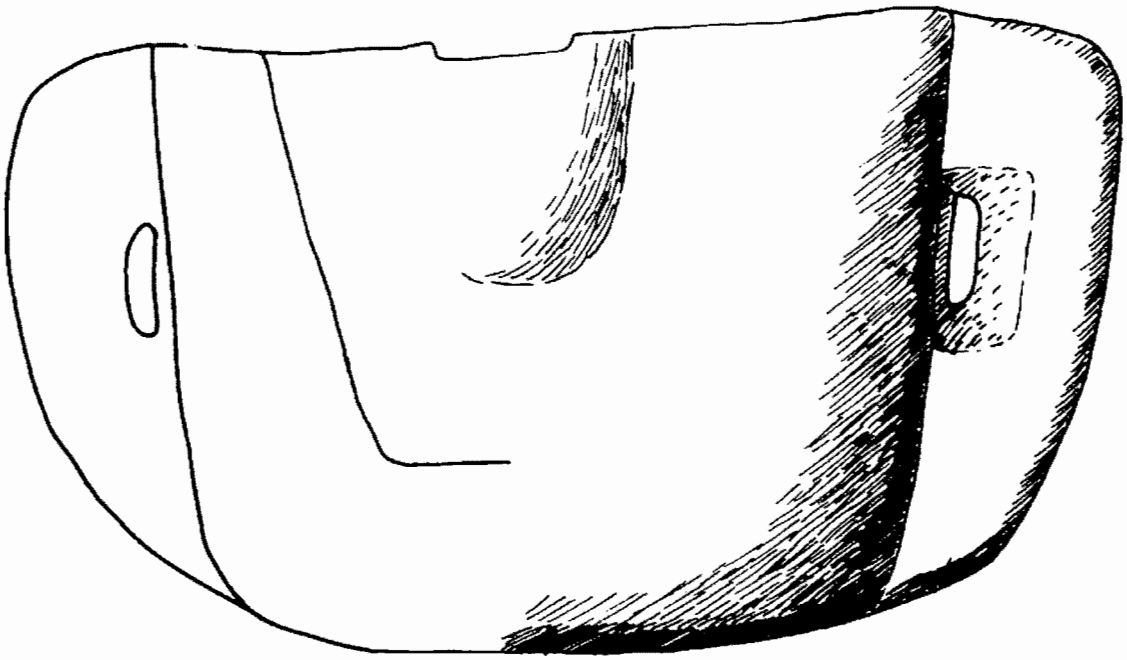
> 'PRESUMED ANCIENT TIN MEASURE Found near Chapel Rock, Marazion in sea bed. Presented to Lord St Levan by Mr R. J. Noall of Hellesvean, St Ives. He believes the origin to be Phoenician & that the Bowl is probably made of foreign stone.'

Unfortunately the vessel, while still of considerable importance, is not quite as exotic as was believed by Richard John Noall, described in 1971 as 'an old-style local antiquary and collector' (Charles Thomas' editorial note to Noall 1971) who was active in the first part of the 20th century when Phoenicians were still believed to have traded with the Cornish (see Hencken 1932 for the first detailed rebuttal of this archaeological myth which can be traced all the way back to Camden 1586). It is reasonable to suppose that Noall will have accepted Hencken's evidence so a find-date and labelling prior to 1932 may be considered likely.

The vessel is a later medieval mortar (13th to 15th centuries), carved by hand from a single block of igneous stone (overall 330 by 260mm and 180mm high; see Fig 43). It is similar in form and scale to that carved from Beer stone found in early 15th century layers at the Exe Bridge site, Exeter (and illustrated as S.6 in Allan 1984, 295). Well-defined peck marks survive in the bowl which is 165mm in diameter and 104mm deep with steep sides and a flat bottom. The two side handles, both crudely pierced with holes too small to admit fingers, are slightly unevenly positioned and angled, and are of different thicknesses, adding to the generally asymmetrical and irregular appearance of the mortar. One of the opposed spouts has been eroded (perhaps by the sea after its loss) but both were carved as simple rounded protuberances with shallowly cut, splayed channels. There is no sign of any decoration and although the stone dressing is of good quality, the vessel should be seen as a typical household mortar used for pounding or grinding grain, herbs etc.

The findspot is intriguing and may be coupled with the survival of peck marks and the lack of internal polishing or use-marks to suggest that it was lost while being transported from its place of manufacture, perhaps as it was being carried across the causeway to the Mount.

Fig 43 Mortar found near Chapel Rock. Left hand side is cut-away to show internal form Drawing by Peter Herring.



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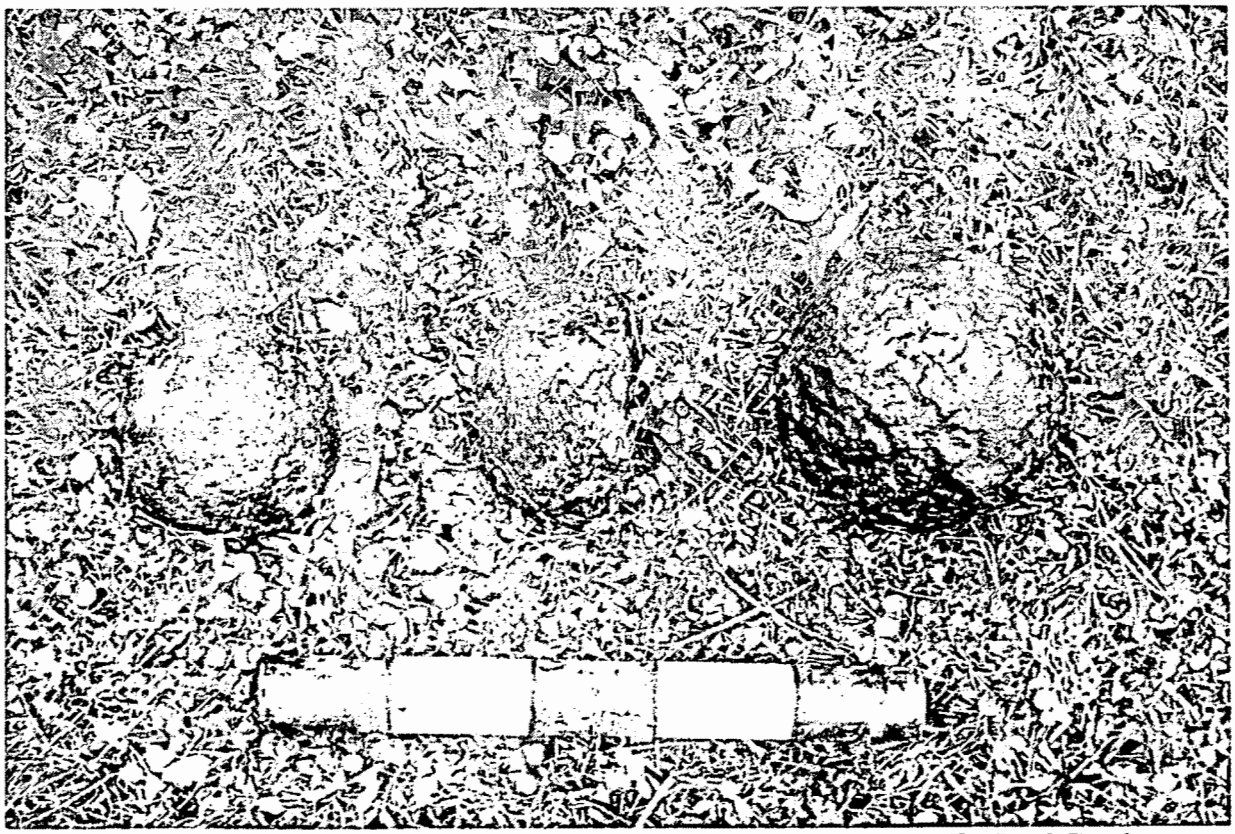

Fig 44 Three cannon balls found in gardens on the Mount by Roy Powell, Head Gardener

7.7 Summary of 1996 sewer watching brief (Thorpe 1997)

In 1996 South West Water installed a waste water pumping station near the eastern edge of the village on the Mount and ran a linking sewer across and beside the causeway to link in with the main Clean Sweep sewerage system via an existing pumping station at Marazion. This was to be cut through the causeway close to its southern end, then run *c*25m to its west, passing between it and Chapel Rock. A series of 24 fairly evenly spaced evaluation pits were dug under CAU supervision along the line of the sewer to search for any submerged forest or buried prehistoric peat, such remains being occasionally exposed further west in Mount's Bay at extreme low tides (see Herring 1993a), and having been sampled *c*2.5km south of the Mount (Goode and Taylor 1987). Any such deposits would provide valuable information on sea level change (of value in determining when the Mount became a semi-island) and on early vegetational history of the area.

Eighteen of the evaluation pits were hand dug to *c*0.3m and then continued down by hand auguring to 1.0m (maximum depth of sewer trench) or to bedrock, if that was at a shallower depth. Apart from a spread of used roofing slates found close to the site of the cross-base beside the causeway, no organic or other significant layers were found in any of the pits and consequently a watching brief was maintained only where the trench cut across the causeway.

The causeway was shown to be of natural origin, a bank of boulders, shingle, gravel and sand on top of which the present granite cobbles were laid, around the turn of the 20th century (see Herring 1993a, 170). No traces of earlier trackways were observed although the low ridge of the causeway is known to have been used as one since at least medieval times (when a cross whose square base survives was fixed beside it). We can reasonably assume that it has been used since the prehistoric inundation. The southern end of the causeway was redirected slightly east of the old line (which ran to the main angle of the eastern pier) at some time between 1876 and 1908 (OS 1st and 2nd editions of the 1:2500 map).

The opportunity was taken to re-examine the top of Chapel Rock, on which traces of the later medieval chapel had been discovered in 1992 (Herring 1993a, 76). A small group of artefacts were recovered from the eroding soil (see 7.5, above). Three sherds of Bunnings Park/Stuffle ware pottery of the 13th or 14th centuries were found along with a fragment of medieval roofing tile, a fragment of Delabole slate and 11 flint flakes of presumably prehistoric date. A piece of early modern clay pipe stem was also found, and a sherd of modern blue and white transfer printed glazed stoneware, perhaps evidence of an early picnic.

The pumping station work involved the sinking of a wet well (1.5m diameter and 6.0m deep) and a valve chamber (1.0m square and 1.0m deep) in the narrow enclosure formed by sea wall, the modern wall on the west side of the garden north of the laundry/island cafe, and a post-medieval fish cellar's east wall (Herring 1993a, 148, site 91615). There was potential for obtaining information relating to the early village and to fishing cellars in particular. These pits and a trench linking the pumping station to the cafe itself were therefore subjected to a watching brief.

A disused cess pit with partly cement rendered walls which had been flushed by the incoming tide via a large diameter ceramic pipe was recorded in the NW corner of the narrow enclosure. It could not be established which structure the cess pit served but an early 20th century sherd was found in the beach sand which had been laid below it. The wet well had to be shifted 1.5m to the south of the cess pit and at a depth of 0.5m the new pit cut through remnants of a cobbled surface which may have been related to the fish cellar known to have

been here since at least the early 19th century (Herring 1993a, 148). Beneath the cobbled floor were layers of rounded beach boulders, and sand which were interpreted as being the base of an artificial platform on which the fish cellar and other possibly post-16th century structures in this north-eastern part of the village were built (Thorpe 1997, 18). Similar layers were recorded in the trench of the connecting sewer run to the cafe.

A large number of late 19th or 20th century artefacts were obtained from within the cess pit. These included 114 pot sherds, 8 butchered animal bones, 5 shards of modern glass, 2 fragments of brick, 4 fragments of wall plaster, 6 undiagnostic lumps of iron, and a copper alloy button (see Thorpe 1997, 23).

8 IMPLICATIONS FOR UNDERSTANDING THE MOUNT'S HISTORY

8.1 Introduction

As was anticipated in 1992 (see Section 1, above), investigation of below-ground remains on St Michael's Mount has yielded considerable information, in the form of structures, features, stratigraphic relationships and artefacts and other small finds, which throw new light on virtually all periods of the place's prehistory and history. While the exercises described and discussed in this report are in many ways most useful in confirming the Mount's potential, and should therefore be regarded as preliminary to more structured and detailed investigations aimed at tackling key problems, it is nevertheless possible to present a review of our current understanding of the island's prehistory and history. Sight should not, however, be lost of the limitations imposed by rapid, watching brief type recording, and the very small scale of the investigations reported on here.

It will be recalled that prior to 1992, and the discovery then of a possible cliff castle (see below, 8.3) as well as a few flints and potsherds, there was no material evidence for prehistoric activity on the Mount; the *Ictis* debate having been informed entirely by marrying classical literary accounts with local topography, and not by any known archaeological remains. Similarly, there had been no physical evidence for Roman and early medieval activity beyond a late 3rd century AD Roman coin found in the harbour in the early 20th century, and a single Roman period rim-sherd found in 1992 (see Herring 1993a, sites 91500 to 91513).

For later medieval and post-medieval periods evidence was much richer, being based on surviving structures and earthworks as well as reasonably rich documentation. It was, however, clear that landscaping and alterations in the 19th century had hidden much of interest and importance in the area of the harbour and village and that were also likely to be important below-ground remains at the summit. There was also a dearth of artefactual evidence to supplement the structural and documentary at the summit and to provide a background for activities in the harbour village.

The works reported here have begun to fill in the gaps, providing artefacts from all prehistoric and historic periods (with the possible exception of the Bronze Age), and structural features from later prehistory and all later medieval and post-medieval periods. It is possible to cautiously explore the meanings of the contents of the artefactual collections, in terms of what they say about, for example, trading links or life in the castle, priory and village, and to suggest interpretations of structures and earthworks. The value of such suggestions lies as much in highlighting the questions still needing answers, as in preparing an authoritative account.

It should be stressed again, early in this discussion, that the examinations of below-ground remains at St Michael's Mount in the period 1995-8 were miniscule. The watching briefs on the sewers and land drain involved no excavation beyond simply cleaning up the sections of machine-cut trenches. These totalled nearly 250m in length and thus ran through numerous features, giving us valuable information on stratigraphy and historic environment development in several important parts of the Mount. They were, however, generally peripheral to the two main prehistoric and historic foci of activity, the summit and the harbour and did not provide large volumes of soil from which to collect artefacts and other

material. It is possible to estimate rough volumes of soil searched in the various elements of the recent work and compare them with the relatively extensive investigations at two other South-Western coastal sites which will figure prominently in discussions of the later prehistoric and early post-Roman periods, Mount Batten and Tintagel respectively (Cunliffe 1988; Thomas 1993).

At Mount Batten, a headland projecting in to Plymouth Sound, local archaeological enthusiasts undertook rescue works alongside quarrying in the 1830s, military terracing in the 1860s, the building of an inn in the 1870s, and numerous other developments in the late 19th and early 20th centuries, culminating in extensive works in association with the creation of a seaplane station during and immediately after the First World War. Further work was undertaken in the Second World War and a number of trial excavations preceded three small trenches dug by the Institute of Archaeology, Oxford in 1983-5 under the direction of Professor Barry Cunliffe (archaeological history summarised from Gaskell Brown 1988). These last three trenches investigated around 16m^3, about the same volume as the whole of the recent works on the Mount, and although the earlier works at Mount Batten were less systematic it is clear that a large part of the headland has been inspected.

At Tintagel, in north Cornwall, 'about 5% of the island's accessible surface has been excavated or examined', mainly by Ralegh Radford for the Ministry of Works in the 1930s but also by a number of smaller-scale trenches for English Heritage in the 1980s and 1990s (Thomas 1993, 71).

On St Michael's Mount, volume of soil inspected during the watching brief of the sewer trench can be calculated as follows. With cleaning up rarely involving cutting back more than 50mm (0.05m) it is possible to multiply trench length inspected (sometimes both sides, sometimes just one) by typical height of archaeological levels above rab, by the 0.05m cleaning back. This provides generous rather than conservative figures. It should also be noted that 540 of the 1330 artefacts recovered (ie 40.6%) came from spoil heaps beside the trench.

Section A	0.55m^3
Section B	11.76m^3 (about half of which comprised 19th century landscaping layers)
Section C	0.84m^3 (almost wholly 19th century landscaping)
Section D	1.3m^3 (mostly post-medieval structures and landscaping)
1996 sewer	0.48m^3 (mostly modern landscaping)
Land drain	0.3m^3 (extent examined strictly limited by health and safety factors).

At the summit the two trenches were cut into silt caught in pockets above bedrock and the soil and materials within it was wholly redeposited. The following volumes are based on multiplying lengths by maximum widths and depths and are thus again generous:

Trench 1	0.67m^3
Trench 2	1.15m^3.

This gives a total volume of 17.05m^3.

8.2 Early prehistory; hunting and gathering and the Mount as a local central place

St Michael's Mount was considered in 1992 to be a likely early Neolithic hilltop enclosure on the basis of its dramatic form, its natural defensibility, and its position at the entrance to the West Penwith peninsula when approached from the south-east (Herring 1992, 58-9). The stony banks (91546) on the north-eastern slopes were seen then as possibly elements of such an enclosure (*ibid*) although on other Cornish sites the enclosures are not on the lower slopes but among summit tors and rocks (Carn Brea, Trencrom, Carn Galva, Helman Tor, Roughtor, De Lank, Stowe's Hill, Tregarrick Tor and Notter Tor). The banks of any such summit enclosure at St Michael's Mount can be expected to have been destroyed by the intensive medieval and later reuse of the area.

Work on the projects reported here indicates that the north-eastern stony banks are more likely to belong to early 1st millennium BC defences than to the Neolithic period. The discovery of a single Neolithic leaf-shaped flint arrowhead did, however, provide the first definite evidence of early prehistoric activity. The arrowhead was within a shallow pit on the lower eastern slopes of the Mount, close to and possibly related to the lowest significant outcrop of granite.

A number of other less diagnostic pieces of flint were also found in this general area. At least two (from contexts 5 and 212) could be Mesolithic (*c*8000-3500BC) and may have been left by hunters and gatherers visiting the Mount during their annual round. Whether the small scatter of flints represents 'a home base camp occupied for a considerable time during a season and perhaps revisited periodically' or a short-term camp, or even just a very briefly

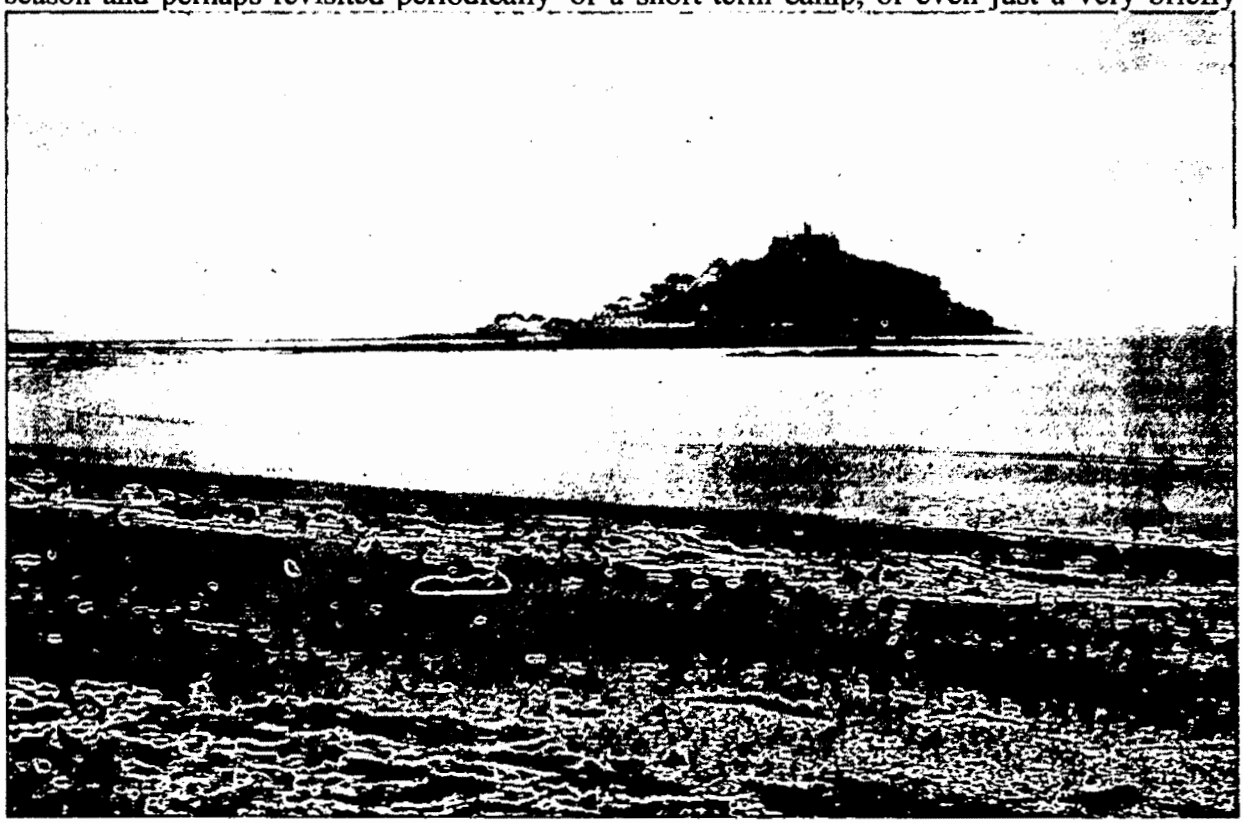

Fig 45 The Mount from the north showing the causeway connecting it to the mainland at low tide

used activity area, the three sorts of Mesolithic site postulated for Cornwall (Berridge and Roberts 1986, 22-3), is of course uncertain. It is likely, however, that the Mount will not only have been a very recognisable landmark within the extensive territories we imagine Mesolithic bands to have been moving around and exploiting, but it will also have been an important and valued spot of relatively dry ground within the marshy forest that appears to have covered the low-lying area that is now Mount's Bay. The Mount can therefore reasonably be expected to have supported a base camp.

It has recently been suggested that rock outcrops and tors on Bodmin Moor will have been 'important focal points' for Mesolithic people, and 'great sources of symbolic potency and power, signifying a wide range of enduring relationships between people, the land, time and space' (Tilley 1995, 12). Later, in the Neolithic period, these places, which probably 'already had an embedded cultural significance', were still respected and often 'referred to' in the design and location of the first monuments (*ibid*, 17).

The whole of the Mount may be expected to have served as such a focal point, but particular outcrops on the hill may have developed their own significance. The lowest outcrop on the eastern side, now decorated by exotic plants as part of the gardens, may have been one such and the scatter of flints and the shallow pit in which the Neolithic arrowhead was found may be indicators of people both gathering around and also performing acts (involving digging a shallow pit) respectful of the rock's cultural importance.

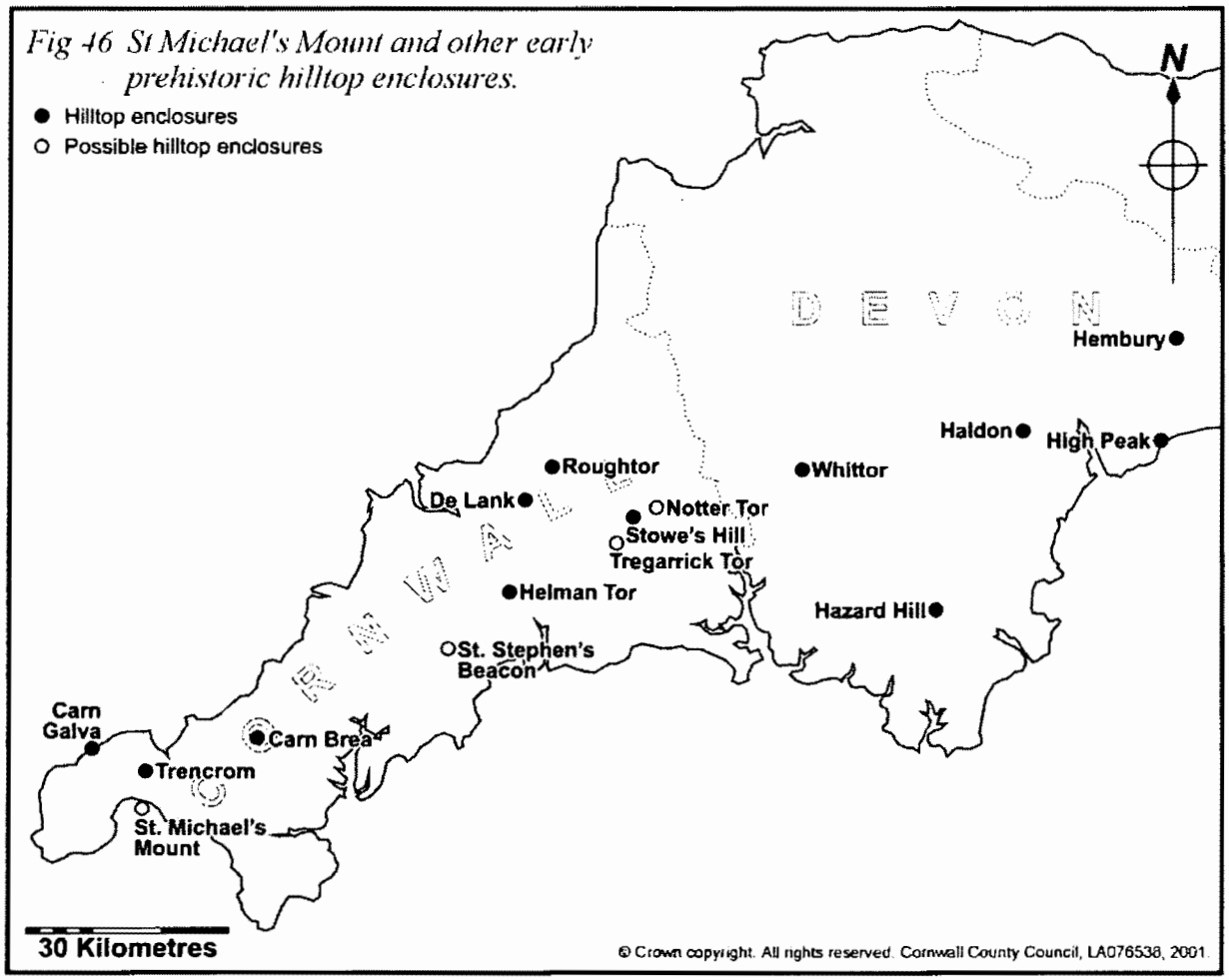

Fig 46 St Michael's Mount and other early prehistoric hilltop enclosures.
● Hilltop enclosures
○ Possible hilltop enclosures

If the Mount was a Neolithic hilltop enclosure like the extensively excavated site at Carn Brea (near Redruth; see Mercer 1981), then we may expect it to have served as a central place within a fairly extensive territory (perhaps reaching north to meet those of Trencrom and Carn Galva and east towards Carn Brea), and also to have acted as a regular meeting place for members of the community living within that territory (see Fig 46 for hilltop enclosures). Exchange of products, problem or dispute-solving, socialising, and rites of passage may all have taken place at such meetings whose timings may have been signalled by observance of solar events (solstices, equinoxes etc) and celebrated by various rituals and ceremonies.

At present there is no evidence of activity on the Mount during the Bronze Age. The hoard of copper weapons once thought to have been found on the western side is now believed to have come from near Marazion Marsh (site 91501 in Herring 1993a; Penhallurick 1986) and none of the flints so far recovered from the island can be securely placed in this period. Again, it may be noted that any early Bronze Age summit cairns will almost certainly have also been destroyed by later activity.

8.3 Later prehistory: wider contacts

In 1992 a complex of apparently defensive earthworks (Herring 1993a, sites 91546-91549) was recorded on the lower eastern slopes, separating the main granite mount from the harbour, the natural causeway, and the mainland, and although the possibility of these works being early prehistoric was discussed (see above, 8.2), it was considered most likely that they were elements of a later prehistoric cliff castle (Herring 1993b, 154).

It was also suggested that the tin trading station called *Ictis*, most fully described by Diodorus Siculus (see Herring 1993a, Appendix V), should be seen as a generic site type, a late prehistoric form of 'port of trade', which foreign traders were encouraged to use by the offer of an easily recognised and neutral coastal site, with safe anchorage and security for both themselves and also their goods. The Mount was, however, considered to be the archetypal *Ictis*, being closest geographically and topographically to Diodorus' description (*ibid*, 59; and see Edmonds 1862, 12, who thought the Mount 'by far the strongest of all the numerous fortified places in Cornwall, and therefore a very safe depot for the metal until the ships came to export it').

Other '*Ictis*' sites might be predicted along the coasts of the South-Western peninsula (Fig 47) and could include not only Mount Batten (see Cunliffe 1983) and St Michael's Mount, but also Burgh Island (near Bantham, south Devon), St George's Island (Looe Island), sites near Fowey and St Austell Bay (perhaps St Catherine's Castle and Black Head cliff castles), and Pendennis on the south coast, and, on the north coast, sites near the estuaries of the Hayle, Gannel and the Camel (perhaps St Ives Island, Trevelgue and The Rumps cliff castles respectively). A number of such sites can be predicted not only because of the existence of several separate tin grounds in the peninsula, each perhaps served by either one or two *Ictis*-type stations (Herring 1997, 21), but also because later prehistoric navigation problems probably encouraged cross-channel shipping to make a passage to the east of Devon and then coast along westwards, calling in at each or some of the distinctive, neutral and secure ports (see Davis, forthcoming).

St Michael's Mount may have been considered by Diodorus (and his earlier, Iron-Age period sources) as the type-site of these trading posts partly because it was the most westerly, nearest to Belerium (Land's End), but also partly because it most vividly demonstrated to his readers the various requirements of ports of trade. Its shape and property of being either an island or a

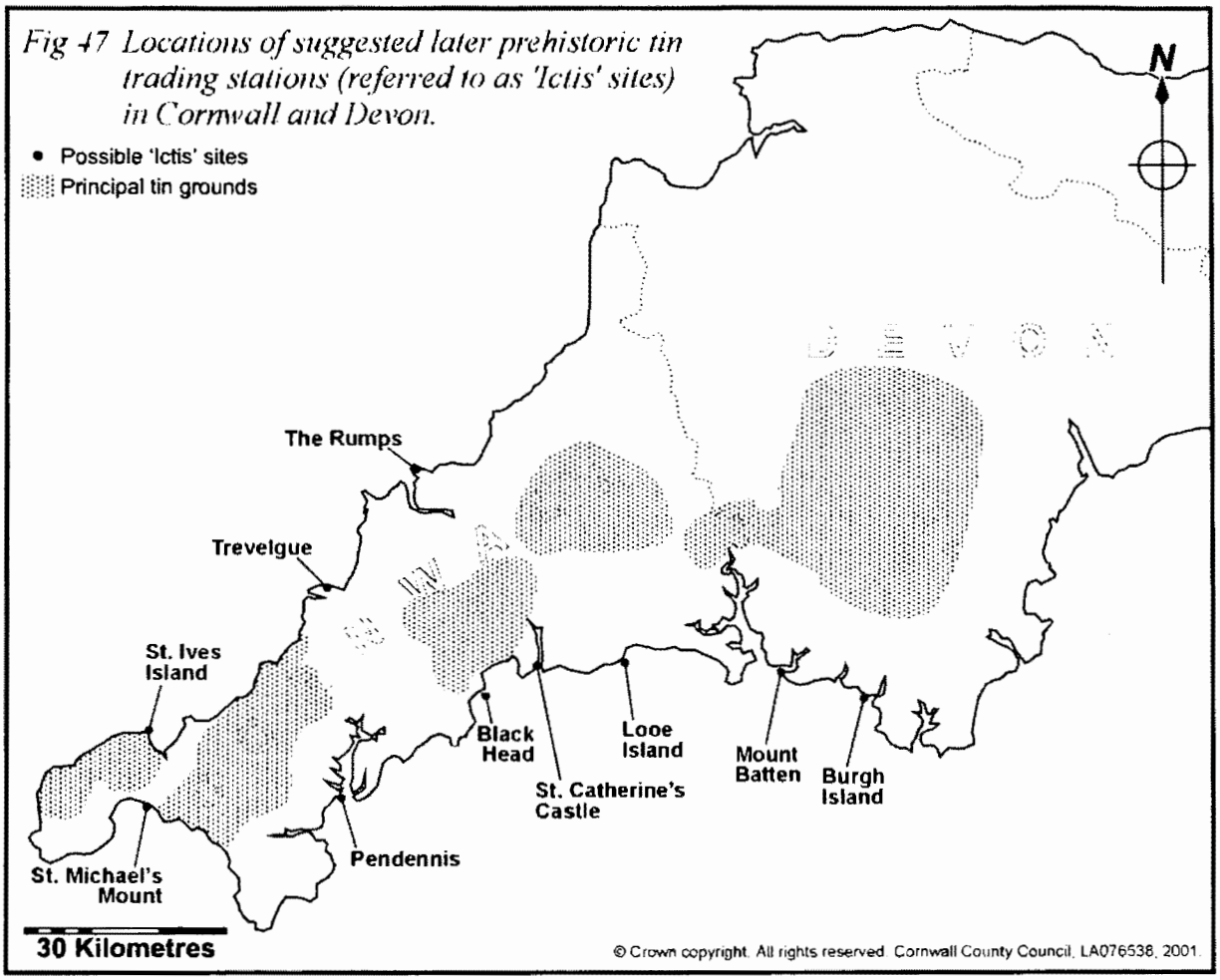

Fig 47 Locations of suggested later prehistoric tin trading stations (referred to as 'Ictis' sites) in Cornwall and Devon.

peninsula at high and low tides (established apparently around 2000BC; see de Beer 1960) are extremely distinctive, ensuring that visiting traders would not confuse it with other in-shore islands. The cliff-castle ramparts reinforced the Mount's natural defences, providing relatively vulnerable traders with security for themselves and their goods, and helping to define that part of the island which could be regarded as neutral ground where neither buyer nor seller could wield unequal influence over the other, where the native Britons could display their special hospitality to strangers. Marazion's sandy beaches were ideal for landing the fairly unmanouevrable ships of the time, and the natural causeway provided the line taken by the wagons carrying the large quantities of tin sold to the European traders. (See Hodges 1978 for a useful discussion of the typical features of ports of trade.)

The recent archaeological work has provided support for the identification of the Mount as *Ictis*. Most important was the collection of considerable numbers of Late Bronze Age and Early Iron Age artefacts which 'may date to somewhere in the 8th to 5th centuries BC' (Henrietta Quinnell in 2.3.3, above) from a newly recognised round house platform (one of at least six) tucked behind the defences on the south side of the island. These finds included part of a plano-convex copper ingot and a saddle quern, the former clearly indicating an interest in metalwork, and the latter suggesting at least a semi-permanent occupation.

The dating of this material is earlier than normally expected for *Ictis* (3rd to 1st centuries BC, based on Diodorus' principal sources; see Herring 1993a), but it should be born in mind that only a small portion of the Mount was examined and that the southern house, and its five unexplored companions (see 3.1) are rather remote and inconveniently positioned in relation

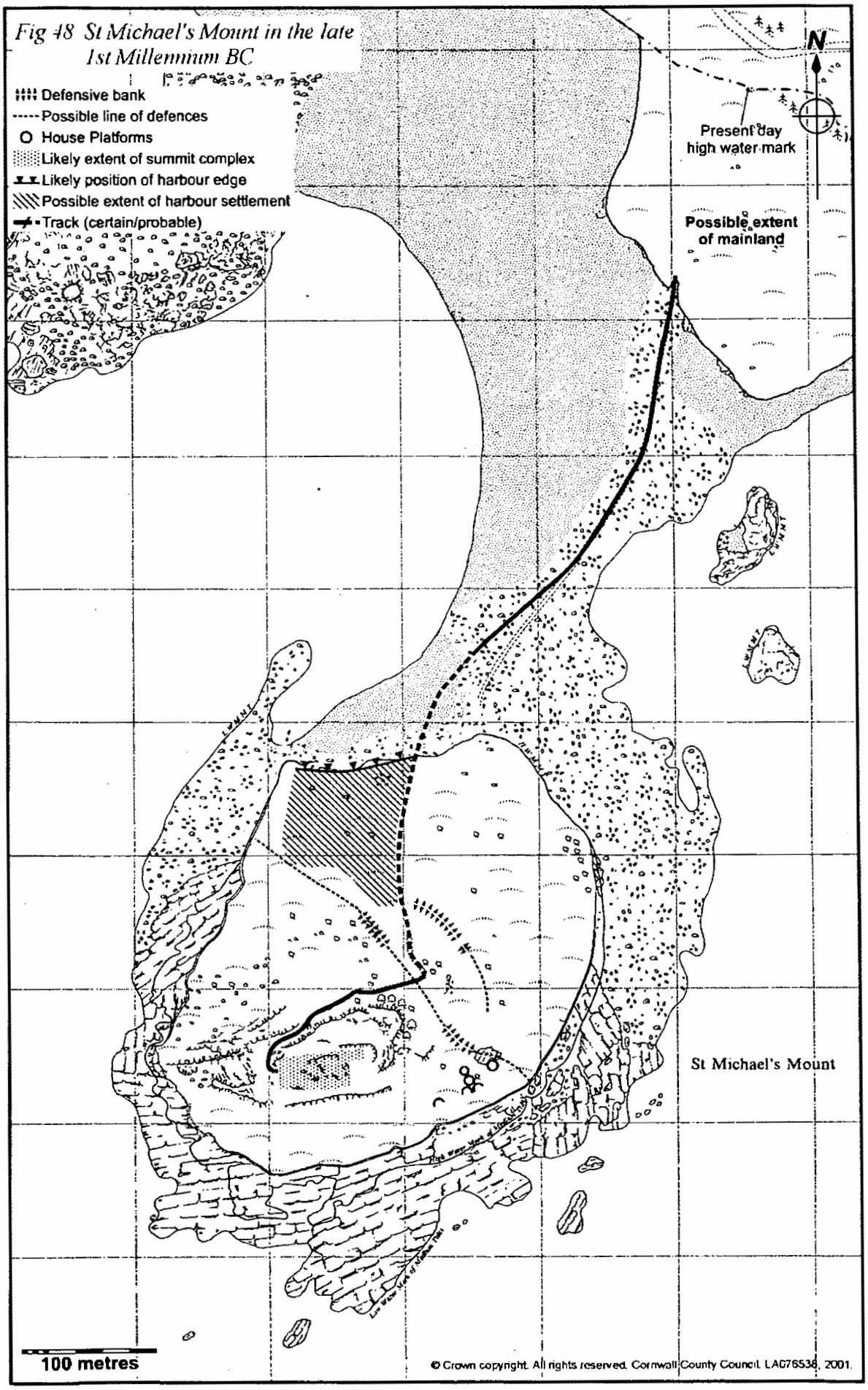

Fig 48 St Michael's Mount in the late 1st Millennium BC

to the harbour, the causeway, and the summit (see Fig 48). Later Iron Age material could either lie undiscovered elsewhere or have been removed during later historic activities in these busier areas. See 2.2.2 for discussions on the scatter of prehistoric sherds on the eastern slopes, some associated with pits, and the loss of prehistoric remains in the harbour area, and 5.4.1 for a summary of the later prehistoric pottery found in the trenching to the west of the summit. The likelihood is that the most significant later prehistoric activity occurred in the harbour/village area, in the vicinity of the passage through the ramparts of the track to the summit, and at the summit itself. All these areas have been intensively reused in subsequent periods and surviving remains may be expected to be covered by later structures, lost to landscaping works (as at the village and on the lower slopes), or disturbed. Note that a saddle quern found in the land drain trench probably came from the harbour area (see 6.3.1).

Henrietta Quinnell argues in her discussion of the prehistoric pottery (2.3.3, above) that the, as yet, minimal artefactual evidence from the Mount suggests that it is likely to have had a similar history to Mount Batten near Plymouth. Only a single sherd of 1st Millennium BC European pottery was found at that headland site, the rest all being local wares, but there was considerable metalwork evidence for cross-channel metalwork trade throughout the millennium. The single sherd [P1] of central Southern English pottery of probably Early Iron Age date found within the house platform on St Michael's Mount could be seen as 'the precursor of exchange contacts over a long period in the 1st millennium BC' (Quinnell, 2.3.3, above). It might also provide some support for Peter Davis' model of traders landing in central southern Britain and coasting along its southern seaboard (see above).

The close association of the Late Bronze Age and Early Iron Age material and round houses with the simple stony ramparts not only reinforces the argument that at least some of Cornwall's cliff castles have earlier 1st millennium BC dates (see Quinnell, 2.3.3, above; and Herring 1994, 44-50), but also reawakens thoughts that among their several functions will have been the servicing of long-distance trade (see Herring 1994 for a review of interpretations of cliff castles).

It may also be supposed that classical topographers, such as those informing Diodorus, will have been most impressed by an established site with an already long history, such as seems to have been the case at the Mount.

8.4 Roman period

Continuity in the use of the Mount as a trading station through later prehistory to the early post-Roman period (see below) can not yet be demonstrated as our argument for late 1st millennium BC trade still rests largely on the still uncertain, though increasingly likely, identification of the island as *Ictis* (see above), and material evidence for the Roman period is still sketchy.

Two rim sherds from bowls are local Cornish wares of the middle and later Roman period, the latter from the summit and the former from the eastern cliff exposure (P13 and P12 respectively) although both may also be immediately post-Roman in manufacture and use (2.3.3). Possibly significant is the single Roman coin found in the harbour in 1905 which is of Tetricus I (AD 270-273). It was suggested in 1992 that this coin (if it was not carelessly dropped by an antiquarian) could indeed form the foundation for a model of Roman period trading at an island which had been used as such before and was to be used as such for most, if not all, of its subsequent history (Herring 1993a, 60-61). Nothing in the recent works

undermines this position; instead the confirmation of immediately post-Roman long-distance trade may be used to consolidate it.

As Tintagel forms the critical comparative site for the post-Roman period (below) it is worth noting the parallels between the two sites in the Roman period. At Tintagel, with its considerably more extensive archaeological excavations, several hundred sherds of mid and late Roman period locally-made pottery have been found, together with a small hoard of Roman coins including one of Tetricus I but also others of the later 4th century (Thomas 1993, 84). Tintagel also appears to have been the focus of sketchily understood Roman roads in north Cornwall associated with 'milestones' or stones recording road maintenance of the mid 3rd and early 4th centuries (*ibid*, 82-3).

There are also two 'milestones' in the vicinity of St Michael's Mount and although neither is as close to the Mount as the two near Tintagel are to that place, they do support the reconstruction of a pattern of communication lines focussed on our site. In Breage church, 9km ESE of the Mount, is a stone bearing the name of Marcus Casianus Postumus, Emperor of Gaul AD 260-268, and at St Hilary church, 3.5km ENE of the Mount, is a stone of Constantine the Great, AD 306-308. A road passing through Breage parish could have run along the coast of Mount's Bay. Another may have crossed the Hayle River near its tidal limit at Relubbus and passed St Hilary on a western route that took it close to the Mount. A third line of communication may be predicted crossing the isthmus between Marazion Marsh and the Hayle estuary, roughly the line of the present A30.

8.5 Post-Roman: the Mount as 'citadel'

Among the most significant discoveries made in the recent works were those at the summit and close to the harbour of sherds of 5th and 6th century AD amphorae of eastern Mediterranean origin (5.4.2 and 6.3.2). Professors Charles Thomas and Chris Morris in their investigations of the discovery of thousands of such sherds at Tintagel have established a model of a secular courtly centre there at which such exotic imports will have reinforced status (see Thomas 1993). As yet St Michael's Mount has produced only a tiny fraction of the number of sherds found at Tintagel but only a comparably tiny fraction of the island has been investigated (see above). It is too early to state that similar volumes of pottery to those at Tintagel would not be found at the Mount if similar areas were to be excavated. 'Roman' period sherds found at the summit may also be 5th or 6th century (see 2.3.3).

Any model of the use of the Mount in this period that seeks to explain the presence of the amphorae sherds must refer to the interpretations being prepared for Tintagel. Most of the other Cornish sites that have produced contemporary imported amphorae (mainly settlements) can be regarded as secondary, the pottery arriving by some sort of down-the-line transmission from primary importing centres (Thomas 1993, 93-4). St Michael's Mount on the other hand differs in being topographically very similar to Tintagel (which is another almost-island, very distinctive in shape, easily defended, and possessing a nearby beach for landing boats, albeit rather more hazardous of entry than those adjacent to the Mount) and having a prehistoric and probably Roman tradition of long-distance trade. Such are the similarities between the two places that St Michael's Mount has previously been proposed, then without any supporting artefactual evidence, as one of a number of 5th and 6th century 'centres of power.... visited in irregular rotation' by a ruler collecting tribute from dependent populations (Thomas 1988, 10-11; and see Herring 1993a, 62). Such a ruler need not have been the same person as that using Tintagel; there is no clear evidence that Cornwall then was either a discrete political entity or part of one (Thomas 1993, 102).

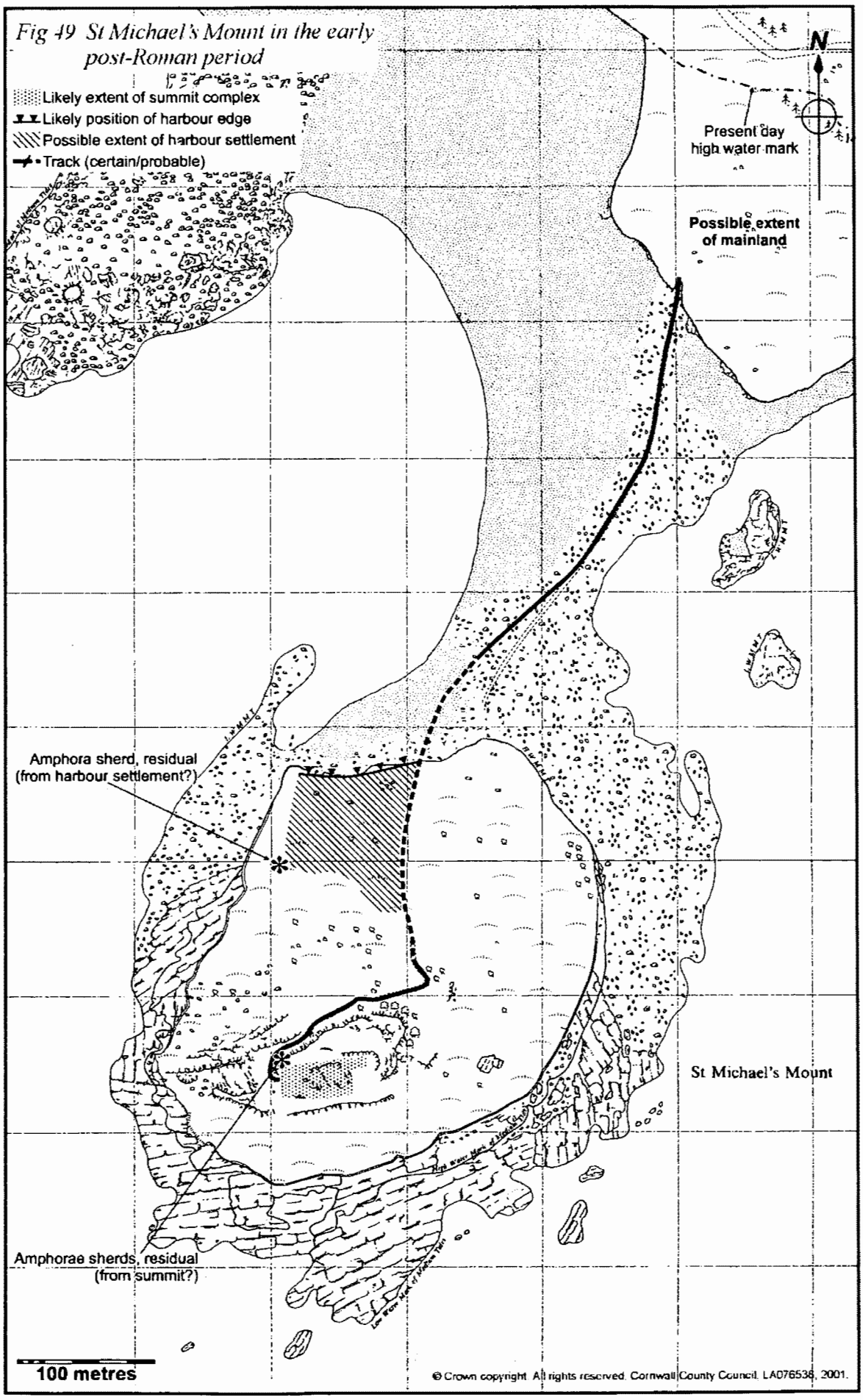

Fig 49 St Michael's Mount in the early post-Roman period

The recent discoveries may be seen as the first stage in confirmation of such a model as until now Tintagel stood alone. Until there are further investigations at the Mount and other candidates for 'citadels', the term adopted by Charles Thomas (1993), we will not be certain that our understanding of early post-Roman Cornwall is being distorted by the astonishing but not necessarily unique riches from Tintagel. Other citadels might include St George's Island, Looe where an amphora sherd was found while gardening (Thomas 1981) and Burgh Island, which is near Bantham Ham in south Devon where several amphorae sherds have been found (Fox 1955; Sylvester 1981; Griffith 1986). It appears unlikely that any other site in Cornwall besides Tintagel will provide such a clear image of the layout and organisation of a citadel (see Thomas 1993, 87-93, for a tentative reconstruction of the contemporary geography of Tintagel island) but on the Mount we can already point to two areas of activity, one at the summit and the other near the harbour.

At its most basic, a model of the layout of the 5th and 6th century Mount, may have the highest status part of the complex, the court and the accommodation of the ruler, at the summit (where all subsequent medieval and post-medieval power centres have been sited on the Mount), and the landing point and associated lower-status settlement at or near the present harbour (Fig 49). It is possible that the complex of roughly rectilinear building platforms visible on the lawns between the 19th century dairy and the present village (Herring 1993a, 144-5), as yet unsurveyed and unexcavated, are also elements of a post-Roman or early medieval settlement similar to that on Tintagel Island surveyed by the Royal Commission on the Historical Monuments of England (see Thomas 1993, fig 68).

8.6 Pre-Norman market and Christian settlement

What happened at Tintagel after the period of the citadel (ending perhaps in the early 7th century; Thomas 1993, 106) is unclear although ongoing investigations by the team from Glasgow University led by Professor Chris Morris may yet throw some light on why the place seems to have been abandoned. The story at St Michael's Mount is also confused. Unlike at Tintagel which is entirely undocumented until the later medieval period, there are tantalising scraps of pseudo-historical evidence for less-than-mundane activity continuing on the Mount: possible references in Saints' lives to an early Christian settlement, in one place called *Dinsol*, which could have originated in the post-Roman citadel period (see Pearce 1978, 192); uncertain tradition of a pre-Norman monastery (*ibid*, 87; Taylor 1932; Orme 1986-7, 32); and references to a market on the Mount in later medieval retellings of the Tristan and Iseult stories (Padel 1981). Until the recent works there was no corroborating material evidence for settlement of any kind on the Mount in this period, and that which has now been unearthed is fragmentary and not easy to understand.

The most substantial evidence comes in the form of a grave in the village which was probably orientated east-west (the nature of the sewer watching brief recording and health and safety issues in a deep part of the trench did not permit a full record of orientation or posture). Nevertheless, we can say that the burial was probably Christian. Radiocarbon dating of the human bones collected from the grave produced a range, at two standard deviations (ie 95% confidence), of AD 818-1030 (see Appendix 4), fairly securely pre-Norman.

If the grave was part of a cemetery then its position can be made to give some indication of the human geography of the Mount at this time (and also throw significant light on layouts in earlier periods). Its location in relation to the Mount's causeway is perhaps the most significant. Until the late 19th century the causeway track's southern end ran a more westerly course to meet the harbour's eastern pier at the north-eastern angle. This may have been closer

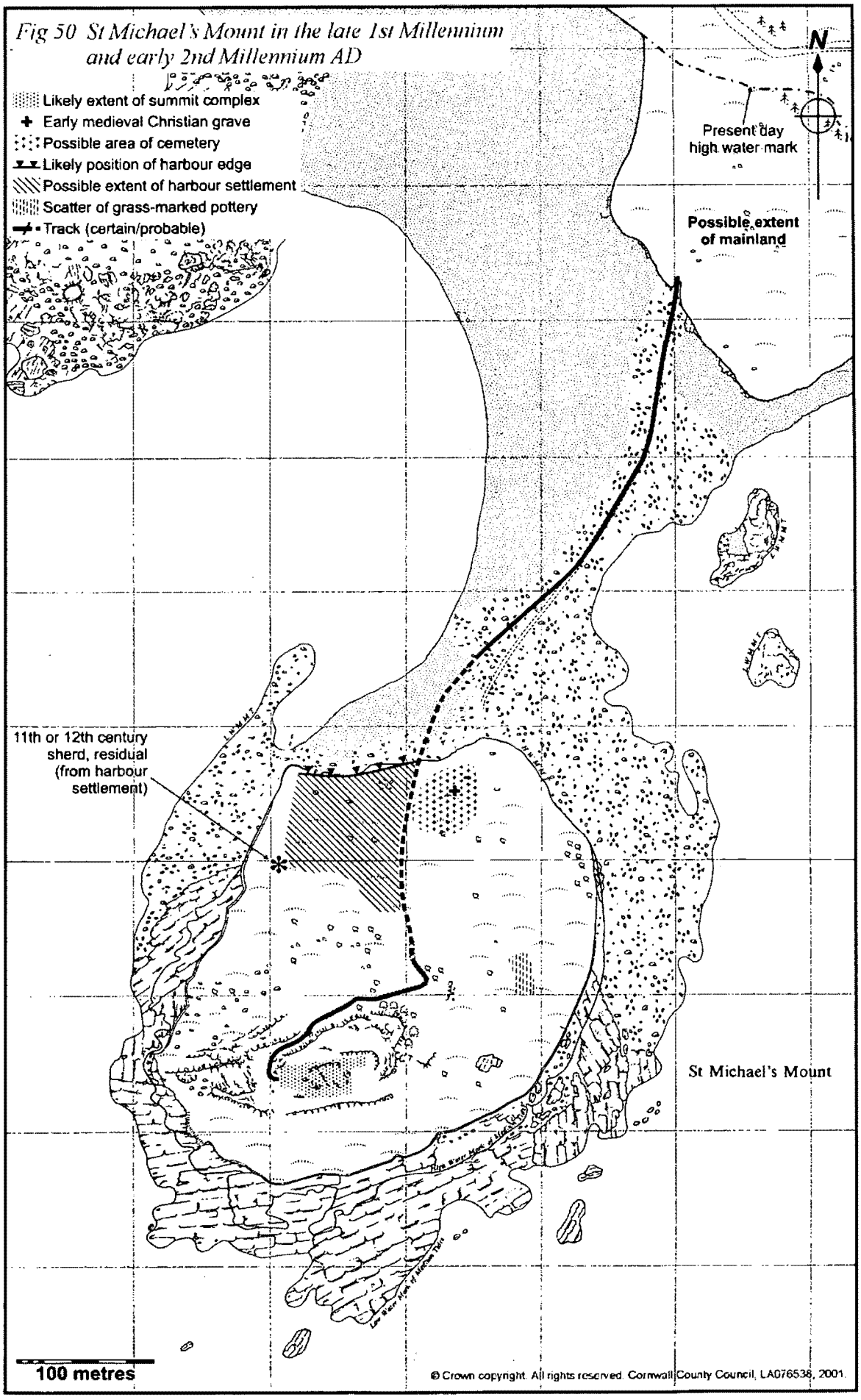

Fig 50 St Michael's Mount in the late 1st Millennium and early 2nd Millennium AD

to the natural line of the shingle ridge and when predicting pre-harbour (ie pre-15th century) arrangements on the Mount we should perhaps place the position of the causeway end around 30m further west than now, the medieval harbour builder's eastern pier being designed to significantly increase the harbour's capacity (see Fig 50). If this was so then the grave is likely to have been on the eastern side of any trackway leading from the causeway to the summit of the Mount (just as the post-medieval cemetery is to the east of the present, probably later medieval track). Flowing from this is an appreciation that any early harbour will probably have been more confined than the 15th century one that still stands today. The paucity of early features and artefacts cut by the sewer trench as it approached and entered the present village may then be partly explained by the sewer passing to the east of the trackway which probably delimited the eastern edge of any pre-15th century harbour and associated settlements.

The grave obviously does not diminish the argument for a pre-Norman Christian settlement on the Mount although it can not in itself be used to confirm one. Numerous water-rounded white quartz pebbles found in association with possibly early medieval sherds where the sewer trench cut through the middle eastern slopes may also derive from a pre-Norman cemetery although none of the grass-marked sherds is diagnostic and so can not be regarded as securely that early (2.3.5). A rim sherd of Sandy Lane style 1 pottery from the land drain (ie west of the supposed early line of the trackway and thus in or near any harbourside settlement) is probably 11th or 12th century in date. All of the grass-marked pottery is, however, likely to pre-date the 1135 building of the summit priory and so may at least be used to suggest early activity.

Although the nature of this activity is, in its detail, uncertain, we can at least propose that it involved a mix of sacred Christian and secular. Returning to the position of the grave in the village; it is possible to suggest that it lay on the east side of the trackway from the causeway to the summit because the land on the western side was taken by a harbour village. Whether anything more substantial than fishing was carried on from such a harbour is of course also uncertain but it should be noted that at least local trade was being carried on from the Mount by the mid-11th century when Robert Count of Mortain included in his gift to Mont S Michel 'both of the fairs of the Mount' (Fletcher 1951, 11). The Tristan and Iseult stories hint that trade was in more exotic goods than may be expected from some rustic market: Ogrin the hermit of Moresk went to the Mount to obtain materials from which Iseult could fashion new clothing for her return to her husband King Mark. He bought green, grey and purple-brown silks, fine wool, linen whiter than the lily flower, brocades, grey and ermined furs, and 'a sweetly ambling palfrey caparisoned in shining gold' (Taylor 1932, 42-47).

Continuity in basic function of the Mount and its harbour through later prehistory, the Roman and post-Roman periods into the pre-Norman may be proposed. Here was the place in west Cornwall where relatively exotic and valuable goods were obtained and where local power was based. The name *Dinsol*, only fleetingly referred to in Saints' Lives may nevertheless be significant, apparently containing as its prefix **dyn*, Cornish for hillfort or relatively significant defended site (Padel 1985, 84-5), and thus perhaps referring to the post-Roman citadel and any later successor.

8.7 Later medieval priory, castle and harbour

There is not space to recount in detail the later medieval and more recent history of the Mount (for which see Taylor 1932; Fletcher 1951; St Aubyn 1978; Orme 1986-7; and other sources cited in Herring 1993a) and for this and later periods we will confine ourselves here to

highlighting areas where the various recent works have elucidated matters.

Significant quantities of medieval artefacts were collected in the sewer trench and smaller amounts from the summit and the land drain. Surprisingly little of the material found was imported, the great majority of the pottery being locally produced in Cornwall, only very little coming from Devon and Somerset, and the continent:

Origins of artefacts 1066-*c*1400 (nos. refer to minimum vessels or pieces)

	Sewer	Summit works	Land drain	Others
Bunnings Park /Stuffle ware	36	12	3	6 (Chapel Rock)
St Germans ware	9			
Devon Coarseware	1			
Southern English sandy ware (Exeter Fab. 44)	1			

***c*1400-*c*1550**

	Sewer	Summit works	Land drain	Others
Cornish coarsewares	6	7		
Lostwithiel ware	10	1		
St Germans ware	8			
Devon gravel-tempered ware	1			
Glazed red earthenware (origin not known)	1	1		
East Devon/South Somerset coarseware	26 (1 jug)			
North Devon calcareous ware	1			
North Devon chert-tempered coarseware	1			
Raeren/Cologne stoneware (early 16C)	1			
Dutch floor tile	7			
Flemish silver coin (early 15C)	1			

The interpretation of this pattern is difficult although attention should again be drawn to the tiny sample of the ground on the Mount examined, and to the location of most trenches away from the likely site of the medieval harbour and village (probably west of the line taken by the sewer trench), and peripheral to the summit complex. Nevertheless it should be noted, to provide a comparison, that nearly 10% of the medieval sherds found on Scilly during the watching briefs on 18km of electricity cable trenches were from Saintonge (western France) and there were also other northern French imports (Allan 1991, 93).

It may be that the pottery assemblage, perhaps the waste from the more modest parts of the Mount's settlement, creates a false impression of limited contact with Europe, rather like at prehistoric Mount Batten and possibly also the prehistoric Mount (see above). The Dutch tiles appear to have come from the priory building on the eastern slopes (see below) and the later medieval low denomination early 15th century Flemish coin was found in spoil heaps also from the eastern slopes. We might have expected to find at least a few northern French imports, especially considering the close links between the Mount's priory and its mother

house at Mont S Michel in Normandy; the archaeological evidence of the surviving harbour having later medieval origins and being substantially larger than contemporary local fishing harbours; and the several clear documentary references to the medieval Mount being a harbour for more than local shipping (eg Taylor 1932, 72-3, 92; Fletcher 1951, 3; Pearse 1964, 89-90; Rowse 1969, 73; Gardiner 1976, 28; St Aubyn 1978). The lack of finds but good documentation provides a useful warning that other sites lacking imported material might still have been significant trading stations. Efficient distribution systems could have removed virtually all exotic goods from harbour sites.

A later medieval stone mortar found on the seabed near Chapel Rock early in the 20th century appears to have been lost while being carried to or from the Mount (7.6). It may have been intended for use there but may equally have been either intended for export or newly imported.

Understanding of the summit arrangements in the medieval period has derived more from the measured survey of the western approaches than from the trenching there. A newly discovered curtain wall, overlain by Sir John's Tower (the most southerly of the great western square towers), adds chronological depth to the outworks west of the castle. It may be secondary to the previously discovered curtain wall but there is no surviving direct relationship between the two and an alternative interpretation could have the newly discovered wall earlier and made redundant by a withdrawn line taken by the other. This is itself securely medieval being primary in relation to the 15th century lantern cross whose shaft survives on its stone plinth. The placing of the cross in the corner of the uneven entrance court created by the defensive curtain wall emphasised to visitors to the summit in the later medieval period that they were entering a place, and meeting a community, with a complex mix of sacred and military (priory/castle and monks/soldiers).

The chronological depth in the defences may indicate responses to the various sieges or crises focused on the Mount in the later medieval period among which were Pomeray's seizure in 1193; installation of an English garrison during the French wars in 1338; Earl of Oxford's seizure in 1472; Perkin Warbeck's seizure in 1497; and French threats in 1514 (see Taylor 1932 and Herring 1993a for details).

Examination of the buildings to the south of the flight of stone steps to the castle entrance appears to confirm their medieval date (although they may have been reused in the Civil War; see below), the inner curtain apparently being secondary to the south-west corner of the building.

Away from the summit, on the eastern slopes, there is evidence for apparently less intensive activity (Fig 51). At least in the earlier part of the period this area was used for burial; a Christian grave cut by the sewer trench yielded human bones which produced a radiocarbon date range of AD 1260-1410, to 2 standard deviations (95% certainty of falling in this range). This may have been part of an apparently informal cemetery known to have been used by parishioners of St Hilary living in Marazion until 1313 (see 2.2.2). It was disturbed, probably in the later medieval period, by other pits (possibly also graves) and overlain by a cultivated soil [212] which appears, from the lack of post-medieval artefacts within it, to have also been later medieval. There may then have been gardens or fields on these relatively stone-free, sheltered slopes in the later years of the priory.

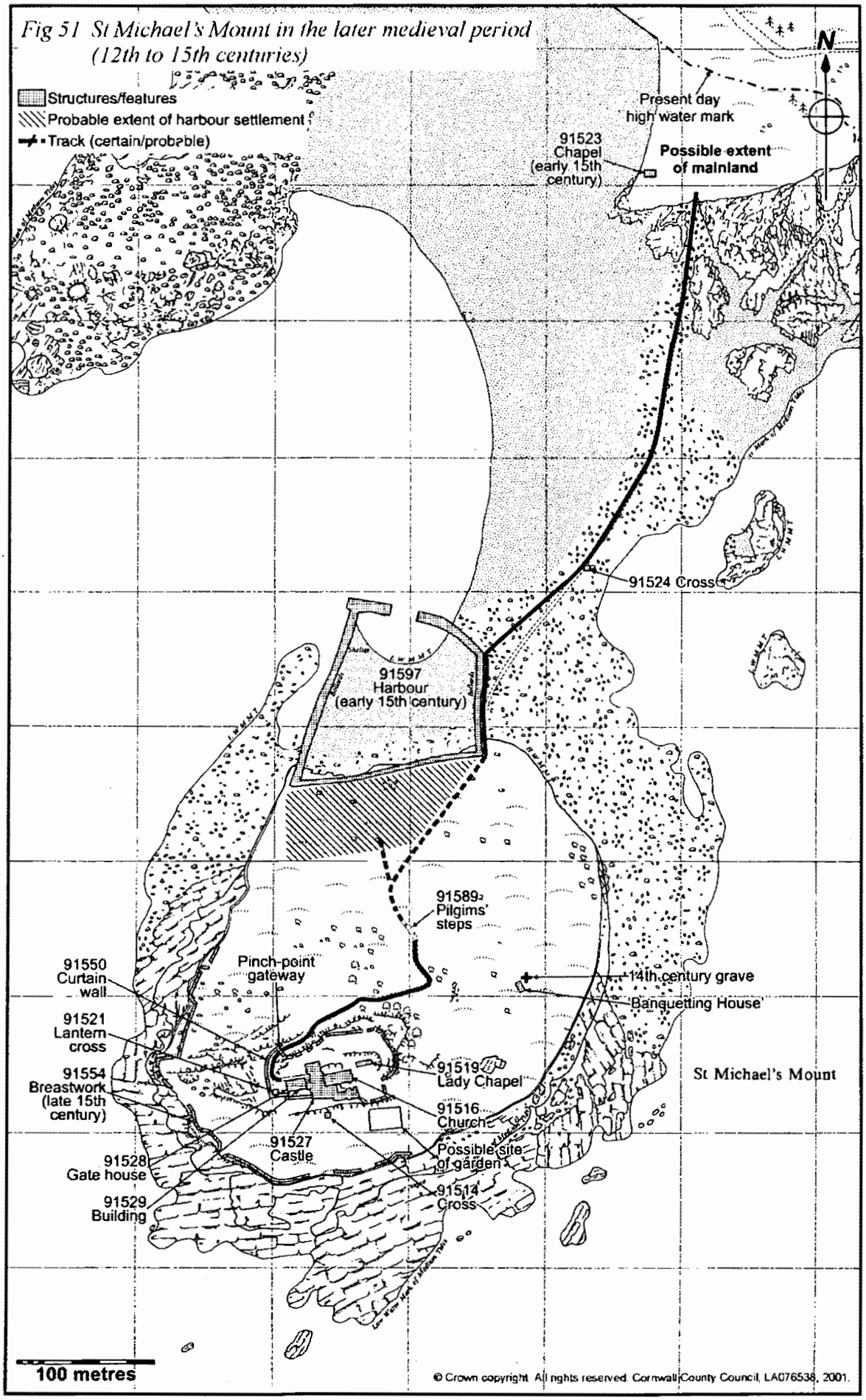

Fig 51 St Michael's Mount in the later medieval period (12th to 15th centuries)

A short distance to the south of the grave the remains of a substantial late medieval building were cut by the sewer. This seems to have been the large two-storeyed structure shown on a later medieval (*c*1515) drawing with a blue-slate roof, and on John Norden's *c*1595 drawing roofless (see 2.2.2). Its location distant from the harbour village, proximity to the earlier cemetery, and the apparent abandonment during the period of the Reformation suggest an association with the priory. Hitchins and Drew in 1824 (326) noted that members of the previous generation, who had seen it standing, called the building the 'banqueting house'. It seems unlikely that this was meant to imply the 16th century use of the term as the fanciful venue for fanciful feasts taken by the inhabitants of country houses (see Girouard 1978, 104-8), and more probable that the name derived from some memory of the building's use as a refectory or similar, perhaps serving pilgrims visiting the church of St Michael (as suggested in St Aubyn 1978).

The watching brief produced large pieces of plaster in the demolition layers, together with plenty of fragments of blue-grey roofing slates, and also showed that the building had substantial, if rather crudely finished walls (see 2.2.2).

A number of 16th century Dutch floor tiles, which probably formed an attractive dark green and yellow checkerboard pattern, and were found further south on the eastern slopes, may have come from this building although they could also have originated in the summit complex. They do indicate continued refurbishment in to the 16th century, presumably before the final dissolution of the priory and chantry chapel in 1548. Several later medieval hand-made ridge tiles could also have come from either the 'banqueting house' or the priory buildings at the summit.

Relatively little - either features or artefacts - of later medieval date was found in the works at or near the village. A few amorphous pits, early in the relative chronology may be medieval but their dates and functions could not be established. We know from a 1481 rental that the later medieval village contained 10 newly erected houses, including at least one fish cellar for salting and preserving fish (see Fletcher 1951, 61), and presumably other older ones. It was probably still concentrated to the west of the line of the sewer trench but most of any shallowly-cut features to the east will also have been lost to the post-medieval removal of layers to create platforms for later fish cellars etc. The main trackway from causeway to summit was probably still to the west of the present line and the line of the probably medieval 'Pilgrims' Steps' (site 91589 in Herring 1993a), running up from near the dairy and apparently orientated on a point roughly central in the present harbour's south side, seems to confirm this.

8.8 Post-Reformation

Artefacts collected during the recent works which date to the early post-medieval period contain rather more foreign imports and pieces from beyond Devon than in earlier periods but numbers of exotic pieces (see tables below) are still modest considering the known importance of St Michael's Mount as a port. The enormous Martabani storage jar, from Burma, is the most surprising piece and would probably have made its way to the Mount as a fresh-water container on a ship; it is unlikely to have been imported directly from Burma. Once unloaded from its ship it was reused within one of the probably early 18th century fish cellars as a sump for collecting the 'train oil' expressed from pilchards.

Foreign imports to *c*1800 (nos. refer to minimum vessels or pieces)

	Sewer	Summit works	Land drain	Others
Frechen stoneware (late 16C - 18C)	5	1		
Martabani (?17C)	1			
Chinese porcelain (early 18C)	1			
Werra (17C - 18C)	1			
Westerwald (17C)	1			
Rhenish stoneware (18C)	1			
Normandy stoneware (17C - 18C)	2			
North Holland slipware (late 17C - early 18C)	1			
? Merida (post-medieval)	1			
? Saintonge (post-medieval)	1			
Delft wall tile (18C)	1			
Dutch brick (late 17C - 18C)	2			
Dutch clay pipe (17C)	1			
N European glass (16C - 17C)	1			

English pottery to *c*1800

	Sewer	Summit works	Land drain	Others
Glazed red earthenware (Devon, Somerset and Bristol)	81			
N Devon glazed red earthenware	7			
N Devon gravel-tempered glazed red earthenware, Barnstaple Ware	18			2 (east cliffs)
Devon gravel-tempered glazed red earthenware	3			
Cornish coarseware, Lostwithiel Ware	5			
Donyatt ware, glazed red earthenware	18			
Bristol / Staffordshire ware yellow-glazed red earthenware	12			
Bristol / Somerset yellow-glazed slipware	5			
Somerset or Devon coarse sandy ware	2			
Bristol Ware, saltglazed	2			
Nottingham saltglazed stoneware	1			
English grey stoneware with white engobe	2			

At the summit, there will have been significant changes within the main complex as the priory and chantry chapel were closed but there seems to have been minimal impact on the features recorded during the surveys. It may be suggested that the lantern cross was partly dismantled in this period. On the eastern slopes the 'banquetting house' appears from both contemporary drawings and the lack of early post-medieval artefacts amongst its demolition layers to have been unroofed and disused, if not fully demolished. There is good pictorial evidence that it stood as a roofless ruin for around 200 years.

In the village there is a possibility that there had been an eastward expansion in the later medieval or earlier post-medieval periods, and an associated eastward shift of the main trackway to something like its present line. The lowest cobbled floor found in the sewer trench, probably that of a fish cellar or associated yard, appears to relate to an east-west lane which pre-dates the Middle Street recorded in the 19th century but probably with origins in the

great rebuild of the 1720s. The line of the earlier lane, apparently running parallel to the waterfront, suggests that the impression of relatively haphazard arrangements of village buildings given in early post-medieval representations may be false, and that the village was more consolidated and fairly organised.

8.9 Civil War

The recent works have increased our understanding of the Mount in the Civil War, notably through the discovery of evidence for hasty musket-ball manufacture from salvaged lead (fish weights, roofing sheets, and possibly also previously discharged musket balls) in the village area (in the 1998 land drain trench), and the more detailed recording of the fortified gateway on the main approach to the summit castle and the lower gun battery 'behind the Castle'. The distribution of casual finds of musket balls has also been sketch plotted. It should be noted that not all cannon, musket, and pistol balls need relate to the Civil War; some will also have been lost in earlier tussles and in exercises. A late 15th or early 16th century cannon found on the Mount in the 19th century is on display in the Armoury of the castle (Carpenter 1993, 48-9).

A review of previous statements regarding the capitulation without struggle of the Mount's Royalist garrison to Col Hammond's Parliamentarian army in April 1646 (see Herring 1993a, 31; based largely on Coate 1933, 214-215) has been assisted by Lord St Levan who has drawn together documentary evidence which effectively refutes it. State Papers (Vol 514.4, 1646, April 18th) include a Letter of Intelligence from Exeter, signed W.C. which contains the following:

> 'This morning there came letters from Colonel Hammond of the surrender of St Michael's Mount in Cornwall on Thursday morning last. Sir Arthur Basset was Governor, and he, with the rest of the citizens are to go to Scilly. There was taken therein 30 pieces of ordnance, 3 murdering pieces, 100 barrels of gun powder, 500 muskets, 100 pikes, 80 tuns of wine, besides store of other provisions. The next day he intended to summon Pendennis and I hope you will shortly have a good account thereof.'

This in itself does not refer to a siege, but the contemporary account made by Joshua Sprigge, a Parliamentarian, is more explicit:

> 'Near to Pendennis is the Mount in Cornwall which was surrendered to Colonel Hammond who lay before it with some of the foot of his army and obtained the surrender of it some four days after the surrender of Exeter.... It is a place of great strength, the tide flowing about it twice a day, which renderd the reduction of it a service of great difficulty and consequence and redounding much to the honour of Colonel Hammond.' (Sprigge 1647, 309)

Brigadier Peter Young, a military historian specialising in the Civil War, provided Lord St Levan with a note, dated 1981, and citing a folio between pages 334 and 335 of Sprigge 1647, which stated:

> 'St Michael's Mount yielded on 15th April 1646 after 15 days of siege with 15 pieces of ordnance and 400 arms. Sir Arthur Basset, formerly Commanding Officer of the Marquis of Newcastle's regiment of foot (Red Coats) was the Governor.'

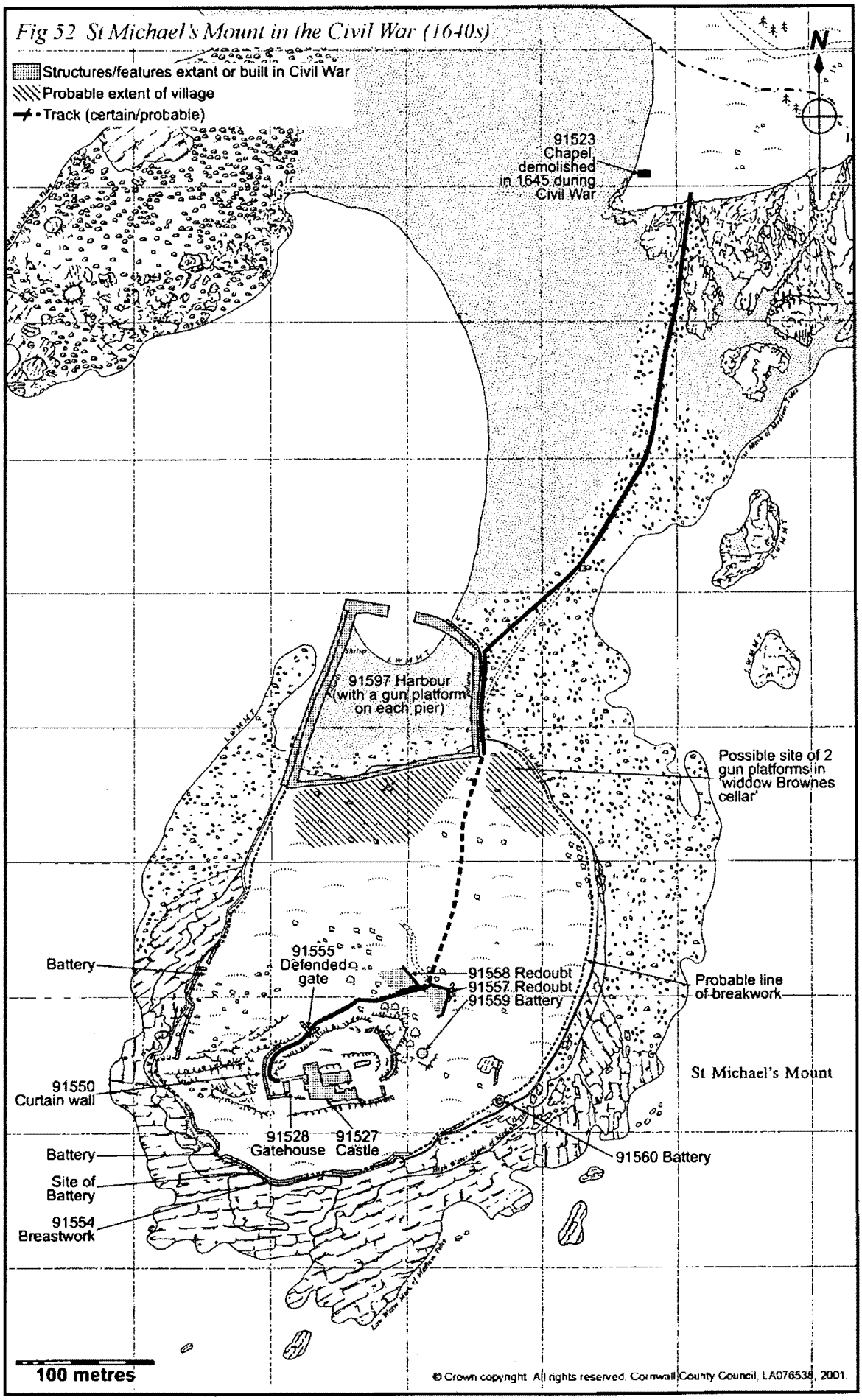

Fig 52 St Michael's Mount in the Civil War (1640s)

Mary Coate outlined the evidence for a loss of morale at the Mount - 100 men deserted on 19th March, and another 80 were surprised unarmed in Market Jew (Marazion) on April 1st - and in the neighbouring countryside (Coate 1933, 214). She also drew attention to the weakness of the position of the Governor, Sir Arthur Basset, whose family had lost much of its money in fortifying and garrisoning the island (*ibid*). Coate suggested that 'in these circumstances, believing his position hopeless before it had actually become so, he agreed to surrender. Thankful to be spared a siege, the Parliamentarians gave easy terms and allowed the Duke of Hamilton [one of two high status prisoners held by the Royalists, the other being Sir Richard Grenvile] to proceed to London, and the officers to their homes or to Scilly with their arms' (*ibid*, 214-5). Lord St Levan has provided a copy of a Parliamentarian letter written 19th March 1646 describing recent action in Cornwall. It contains the following revealing passage. 'The enemy hath fortified the Mount where the Marquesse of Hamilton is kept. Eighty Souldiers that should have gone into the Mount, came this day with their Arms, and tendred their service to the Generall [Sir Thomas Fairfax] at Truro. The Generall intends to send a Regiment to Marketsene [Marazion] to block up the Mount, and to keep them from Ranging abroad; They say the Mount is a place neither strong, nor well victualled, and therfore cannot hold out long'

In light of the evidence gathered by Lord St Levan, and the recently obtained archaeological evidence of the hasty casting of musket balls from salvaged lead, it seems reasonable to conclude that there was a short, sharp siege of the Mount after which the Royalists gave up rather easily compared with the garrison at Pendennis. Doctor Mark Stoyle, lecturer in Modern History at Southampton University, and a specialist on the Civil War in the South-West, in a letter to Lord St Levan, has concluded that, 'we can be quite confident that a siege did indeed take place between 1st and 15th April 1646'. It is still not certain whether the discovery of 'Cromwellian armour' (St Aubyn 1978) near the main (west) door of the castle during diggings in the 19th century can be used to further demonstrate a siege. The armour could have found its way there in a number of ways and may be more likely related to the occupation of the Mount after the siege. It appears to be visible in 1812 and 1842 representations of the Chevy Chase room of the castle (Lord St Levan, pers comm).

The principal surviving structures erected by the Bassets on the Mount during the Civil War have been previously described (Herring 1993a, 105-111). As a group, they comprise one of the best preserved and clearly defined surviving Civil War complexes in the country (Fig 52). It seems likely that the summit was also strengthened and 'ye Tymber plattforme before ye Gate' in Lady Ann Basset's accounts of her late husband's fortification of the Mount may refer to works in front of the entrance to the castle. There are hints in the area of the cross shaft of adjustments made in the general period of the Civil War and the buildings to the south of the flight of steps to the castle's entrance may also have been reused (see 4.2.1)

8.10 Early modern Mount

After the Civil War the military aspect of the Mount rapidly faded or diminished, the St Aubyn family taking possession from the Bassets in 1659 and immediately undertaking significant alterations to the interiors of the summit buildings, domesticating them in preparation for the summit pile's subsequent principal use as a dramatic country house. There were, however, a few further occasions when the Mount was pressed into military service and the summit batteries and those on the west and east shores were installed in the 18th century. The recent works included preparation of measured surveys of the two western summit batteries and the eastern shoreline battery (see 3.1.4 and 4.2.1 for details). It seems possible that the summit batteries were built of local Mount granite as there are several examples

nearby of rectangular blocks having been worked off the bedrock and large boulders using the pre-1800 wedge method of stone splitting (see 4.2.1). Artefacts collected in the shallow soil behind the north-western battery included 18th and 19th century pottery sherds. Spoil heaps created during preparations for cobbling at the summit yielded an early metal denture. Recent investigation by Pamela Dodds of information contained in the Dr William Borlase archives at The Morrab Library in Penzance has suggested that two western batteries at the summit were designed by one Anthony Harris some time before Borlase penned a letter to Sir John St Aubyn, 3rd Baronet on 5th June 1738 (Borlase Letterbook Vol 13, LB1, p46). These are likely to be the precursors of the batteries that survive today (see Herring 1993a, 111-113 for descriptions of the mid-18th century drawings of these now hanging in the Long Passage of the castle).

Large numbers of early modern artefacts collected in the recent works include the range of mundane or modest domestic pieces typically found in most Cornish settlements. Large numbers of glazed stoneware and earthenware pot sherds, green bottle glass shards, clay tobacco pipes, Delabole roofing slates, ceramic ridge tiles, fragments of brick, lumps of wall plaster, iron nails, and butchered animal bones were found in the village deposits and in the silty soil around the summit batteries. Little archaeological work took place close to the family quarters at the summit and so there are few fine pieces that can be associated with the St Aubyns themselves.

In the village area, mainly in dump layers between the two fish cellar floors, there were, as would be expected a few fishing artefacts; most impressive was a large granite weight (used for pressing pilchards) but there were also lead fishing and sounding weights, as well as layers of bones and scales of the fish themselves.

It is not certain whether the lowest cobbled floor in the village is early 18th century in origin or earlier (see 2.2.4 and 8.8). If the former, it would probably have been created in conjunction with the efforts of the 3rd Baronet, Sir John St Aubyn, to revitalise the harbour and fishing village (see Pool 1975, 42; Herring 1993a, 140) but, as noted above, it appears to relate to a lane which preceded the probably 18th century Middle Street. Middle Street was itself also cut by the sewer trench and its topmost cobbled surface was shown to be one with the later upper cobbled fish cellar floor. A narrow alley appears to have run east-west to the north of the fish cellars.

On the eastern slopes a number of pieces of burnt lime were collected. These may have been brought to the island to sweeten the acid soils of gardens and fields but may also have been created on site in the limekiln we now know existed by at least 1659, relatively early for Cornish kilns. The kiln was possibly established partly to provide lime for plaster and mortar used in buildings on the Mount although its product may also have been carted off to local farms. Gardening was probably extended in this period on the Mount. The walled gardens on the southern slopes appear to have been created before the mid 18th century (site 91578 in Herring 1993a) and the large garden on the lower north-eastern slopes, uphill from the modern cemetery, was extant by the early 19th century (site 91595 in *ibid*). This latter garden was removed in the later 19th century but the sewer trench cut across its southern wall, confirming early photographic evidence that it was a neat masonry structure.

The Borlase letterbooks throw some light on the 18th century improvements at the summit and on gardening on the Mount. In June 1738 Dr Borlase reported to Sir John St Aubyn the 3rd Baronet on plaster work being undertaken by a Mr Green 'in the Closett'. He was responding

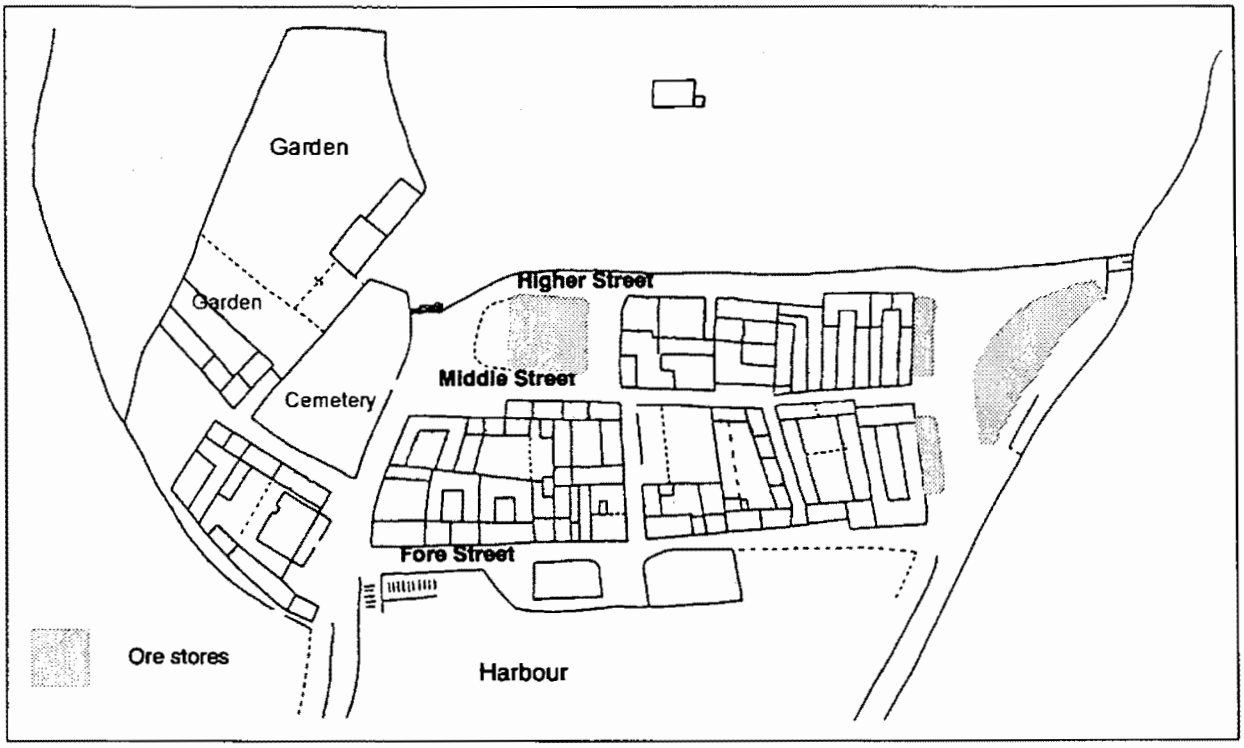

Fig 53 Plan of the Mount village in 1834 (copied from original held in the Manor Office, Marazion) with the three principal street names added. North is to the bottom. The banana-shaped ore store to the right (west) is that cut by the 1998 land drain. Higher Street has now been removed as have most of the courtyards defined by fish cellars, salt stores, net lofts etc and the gardens to the south-east of the cemetery.

to a query from St Aubyn dated November 1737 about progress on the 'scrolls and inch work' and 'the enmeshed arch' (Morrab Library, Borlase Letterbooks, Vol I, 27). Borlase felt it would 'look very pretty when dry' (*ibid*, Vol 13, p46). In a letter to the Rev Dr Lyttelton in April 1749 Borlase noted that 'some years since it [the Priory on the Mount] was ruinous but the late and present Proprietors have made it a very comfortable summer habitation' (*ibid*, Vol 14, p45). Later that year, on 9th December, the Baronet informed Borlase that 'Next Monday I begin to build a little kind of study in the Dining Room Court at the Eastern end of the Chapel' (*ibid*, Vol V, p255). This is presumably the present Map Room. In August 1753 the Baronet was 'very busy finishing my rooms at the Mount, I have plasterers from London on Purpose, they are making a very pretty, and rich Gothic ceiling, and will do the rest of the work in the same manner' (*ibid*, Vol V, p257). These notes (gathered by Pamela Dodds) add detail to our knowledge of the 18th century improvements (see Herring 1993a 39, for previous outline).

There were plantations of young trees near the 'house' (presumably the summit complex) and elsewhere by June 1738 (Morrab Library, Borlase Letterbooks, Vol 13, LB1, 46, letter to Sir John St Aubyn, 3rd Baronet) and in May 1739 Borlase noted that 'fruit trees in your [ie Sir John St Aubyn's] burning concave mirror, commonly called the new garden have shot very well' (*ibid*, p52). It seems that St Aubyn had a designed vision for the Mount involving plantings of groups of trees, influenced by landscape gardening he would have observed elsewhere in Cornwall and England.

That the 3rd Baronet had a clear and benign vision for the Mount is confirmed by a letter from Borlase to Dr Oliver which was undated but was probably late 1741. 'The young ladies are also at the Mount where the paterfamilias sees with pleasure a little colony of his own planting, thriving under his forming hand both above as well as below; above, his children all apt and docile and promising to reward his more than paternal care; below, his tenants building, ships discharging, nets, boats, men all in motion, everyone busy... . Tis indeed a little world of his own peopling. Providence having chosen him without any colleague to be the author of all... its improvement. I don't wonder therefore that he is so fond of it. Tis impossible for him to be near so happy in any other situation' (*ibid*, Vol 13, p69v)

Dr Oliver himself added a valuable reference to a 'Hewer' - the man who spotted shoals of pilchards and guided the fishing community's seine boats to them (see Noall 1972) - in a letter to Borlase dated December 15th 1741. After thanking him for a drawing of the Mount, Oliver stated his intention to add to the picture the hewer, placing him 'on the top of the most eminent Rock, as near as I can in the Attitude I saw him in when I spent that delightful day with you on the Mount' (*ibid*, Vol I, p135).

8.11 Victorian ornamentalisation

In the period between *c*1860 and *c*1900 the Mount was transformed in to its present form. The changes have not been closely documented (although many are recorded in contemporary maps and photographs) but are clearly visible in the surviving landscape and some were also recorded in the section of the northern part of the sewer trench. They may be characterised as the ornamentalisation of the main part of the island (Fig 54), extending the work begun over a century before by the 3rd Baronet. The summit pile was expanded beautifully by Piers St Aubyn in the 1870s, and the 18th century gardens and the early 19th century plantings of holm oaks and other hardy non-native trees were extended as a park was created for the pleasure of the St Aubyn family and their guests. In 1879 Capt Cyril Fortescue of Boconnoc was one of ten guns who enjoyed a three-day shoot on the Mount, bagging 11 pheasants and 12 woodcock (Turk 1978, 75). New walks were laid out to seats, crags and caves; domestic gardens on the north-eastern slopes were removed and the uneven ground smoothed to support lawns by dumping and carefully spreading materials obtained from the demolition of fish cellars and cottages during the reorganisation of the village. A perimeter wall with fine lodged gateway was built and the cemetery was extended, its walls rebuilt and a lych gate provided.

The sections of the sewer trench as it ran across the north-eastern slopes showed clearly how the old walled garden had been dismantled and the soil within it removed (probably stockpiled for reuse as the basis for subsequent creation of the lawns) prior to two major phases of dumping. These phases each comprised many individual dumping episodes with materials varying from dense concentrations of roofing slates, building stones, plaster etc to redeposited rab (presumably from cuttings made into the subsoil to accommodate structures) and harbour sand (containing the lumps of Welsh coal, abraded sherds etc expected to be found in the Mount's own harbour). These landscaping layers therefore reflect both the creation of a new smooth surface for the establishment of grassy lawns and the associated significant but apparently gradual changes within the harbour village. Here most of the post-medieval fish cellars were demolished in the last decades of the 19th century. They included the cellar whose cobbled floor was cut through by the sewer trench. The walls of this cellar were removed and fires were lit on the cobbled floor during the demolition process (presumably burning building timbers) before relatively clean soil was brought in to create the surface for the present fuschia-hedged lawn. Elsewhere, at the western end of the village,

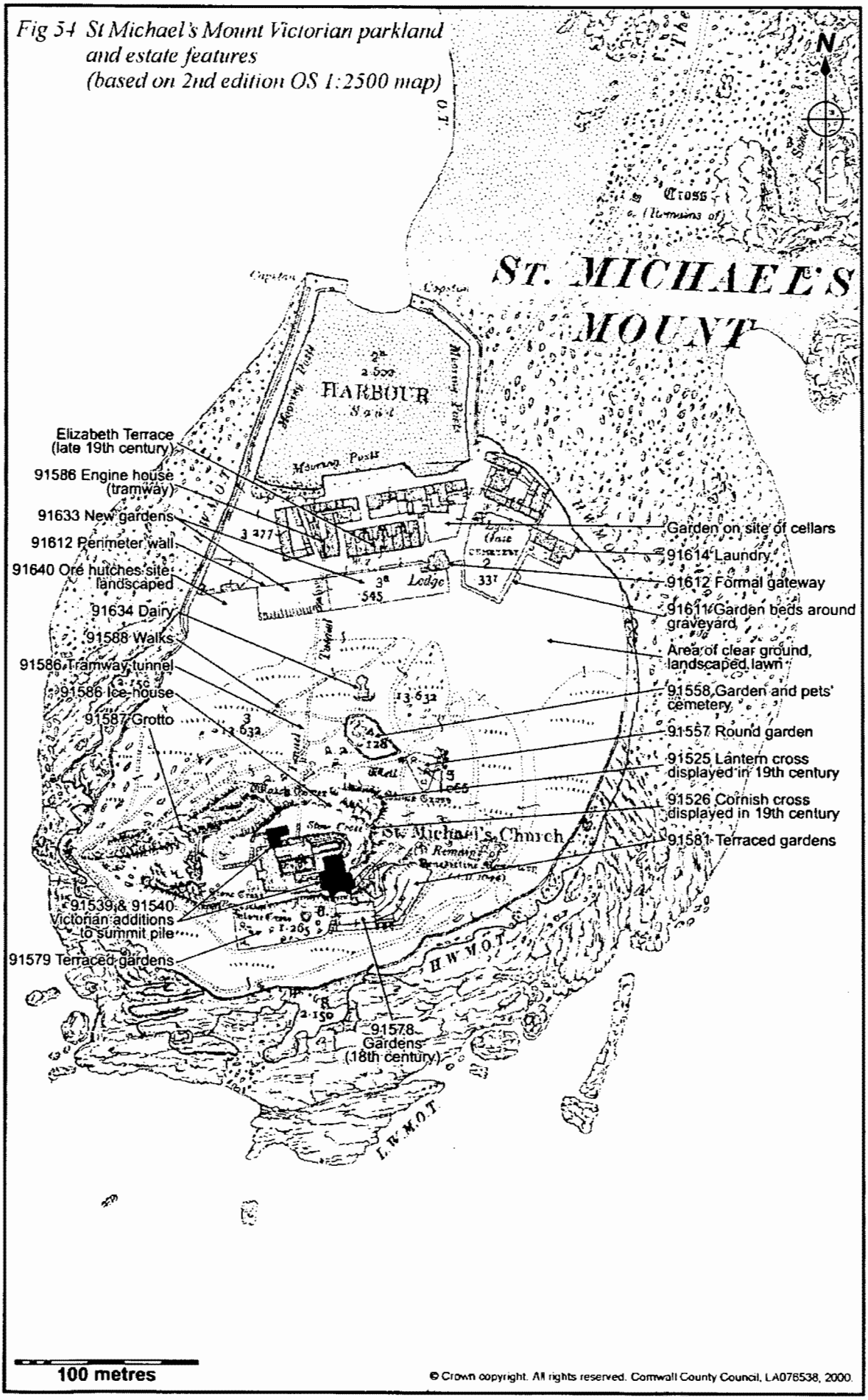

Fig 54 St Michael's Mount Victorian parkland and estate features (based on 2nd edition OS 1:2500 map)

the ore hutches used for storing copper ore in readiness for export to Welsh smelters were infilled with more building debris (revealed in the land drain watching brief).

A neatly built stone-walled drain was run from the newly-built dairy (designed by Piers St Aubyn to resemble the kitchen at Glastonbury Abbey) through the new gateway before the present gravelled roadway was established. Further up the hill, where the slope is steeper, this road is cobbled.

Among the features recorded in detail on the western approaches to the summit was a small ornamental garden established in the 19th century around the spring above the Civil War gateway.

9 CONCLUSIONS AND RECOMMENDATIONS

The works reported on here have demonstrated the need to undertake archaeological watching briefs whenever the soil is broken on the Mount. Each trench excavated or inspected has yielded structures, layers or artefacts that have contributed significantly to our understanding of the Mount's's historical development. So far archaeological recording has been led by the location of various developments (sewer, cobbling, land drain etc). The wealth of remains suggests that a campaign of more targeted archaeological excavations would prove useful. A detailed break-down of such works was presented in 1992 (Herring 1993a, appendix 1). To this may now be added the need to more fully investigate the round houses on the southern slopes and the surviving areas of undeveloped ground at the edges of the summit plateau where there may be remains of prehistoric and post-Roman complexes.

In addition to excavations, the limited detailed surveying of earthworks and structures undertaken for the projects described here have demonstrated the value for improving understanding that more systematic surveys of key areas of the island, or even the whole Mount would provide. Again, there is a list of high priority surveys in Herring 1993a, appendix 1. The importance of recording the summit and the earthworks uphill from the harbour village has been re-emphasised by the discovery in these areas of prehistoric and early post-Roman material.

The aim of such targeted campaigns of survey and small-scale excavations would be to better understand the history of the Mount, one of the most popular but also most poorly understood historical sites owned by the National Trust. Increased knowledge would better inform archaeological responses to proposed developments on the island and provide material for updating the interpretative material presented to guides and visitors.

It has been suggested (John Allan, pers comm) that an organised programme of diving in the vicinity of the harbour and around the rocky foreshore of the Mount may produce important evidence for imported and exported material; collections of artefacts obtained from diving can be more reliably attributed to ship-borne trade. Such programmes have been successful in Devon. Any such work should follow established underwater archaeology procedures for recording and would be subject to the strict regulations concerning disturbance of underwater sites.

Some of the artefacts collected in the works reported on here could be subjected to further analysis. For example, the prehistoric copper ingot fragment has so far been subjected to only preliminary chemical analysis. It is recommended that all the finds collected in the works reported here be stored in sturdy strong boxes and kept under stable conditions, being checked periodically. Arrangements should be made for the return of artefacts to the landowner, the National Trust, or if they consent, for the final deposition of all objects within the Royal Cornwall Museum in Truro. Consideration may also be given to exhibiting some artefacts within the castle on the Mount. Copies of all archive material, and drawings will be kept at the offices of the Cornwall Archaeological Unit, Cornwall County Council.

Ideally, a more popular publication should flow from the archaeological reports, both this one and the initial survey (Herring 1992), and it is felt that this should include reconstruction drawings of certain features (eg Ictis, the banqueting hall), and of the whole Mount at certain key moments in its history; the phase maps prepared for this report (in Section 8) would form the basis of such reconstructions.

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CAU ARCHIVE

The CAU project numbers relevant to this report are:

1995071 St Michael's Mount sewer
1996011 St Michael's Mount sewer and causeway sampling
1997015 Summit works
1998075 Land drain

The projects' documentary, photographic and drawn archives are housed at the offices of Cornwall Archaeological Unit, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. Project files containing site records and notes, project correspondence and administration under the above project numbers.
2. Field plans and copies of historic maps stored in an A2-size plastic envelope (GRE 153).
3. Finished plans and sections are stored as: GRH 160
4. This report, held in digital form as: SITES\S\St-michl.mnt\sewrep2.doc

APPENDIX 1 CONTEXTS RECORDED IN THE SEWER TRENCH

These summaries of the notes taken in the field by Peter Herring are arranged in numerical order, with the area (A-D) recorded (see Section 2.2 for general descriptions), and where appropriate the side of the trench in which it has been recorded (E or W). (NB When no trench side is recorded here, it should not be assumed that the context appears in both sides as there were significant stretches where only one side could be inspected.) Brief summaries of artefacts found in contexts are gleaned from the finds report (Appendix 2). See Section drawings I to XV, at the end of this appendix.

1 **B** **Layer**; typically 0.26m deep; dark/mid-grey/brown sandy loam. Organic loose topsoil; many roots, some stones. Cultivated soil. Finds attributed to this context include those from loose soil immediately adjacent to the trench. Above 2, 6, 10, 11, 14, 15, 16, 18, 21, 26, 36, 38, 212, 217, 218, 221 and 222.

Finds: Numerous artefacts from all periods from prehistoric to the 19th or 20th century, all residual.

2 **B** **Layer**; 0.1 to 0.28m deep; mid-brown sandy-clayey silt. Fairly compact; relatively few stones. Above 4, 8, 9 and 336. Cut by 344.

Finds: 3 possibly Romano-British pot sherds; 1 Early Medieval (8-11C) sherd; 1 red-brick fragment (18-19C). Also un-dated pumice stone, slag (?), and 3 quartz stones.

3 **B** **Natural rab.**

4 **B(W)** **Fill** of 340. Sandy loam; lots of small-medium stones (granite-quartz). Mixed rab with some slates towards top. Above 5 and below 1, 2 and 6.

Finds: Possible Neolithic axe or adze fragment; quartzite pebble used as a whetstone; 6 possibly Romano-British sherds. Two perforated slate fragments and 3 other slate fragments. One daub fragment and 1 burnt clay fragment, the latter a late medieval oven tile fragment. Nine pebbles.

5 **B(W)** **Fill** of 340. Mid-dark brown silty loam. No stones, some charcoal. Above 3 (rab) and below 4.

Finds: One retouched flint blade (Neolithic or Bronze Age); 2 broken flint pebbles; 1 grass-marked sherd (9-11C); 1 iron pin or early nail.

6 **B(W)** **Layer**, 0.23m deep (max). Localised spread of mixed rab and loam in area over fill of depression. Above 4 and below 1.

8 **B** **Layer**; typically 0.12m deep; medium-dark yellow/brown silty loam. Very compact; traces of charcoal. Uneven layer; fills animal burrows etc. Possibly an old occupation surface? Above 3 (rab) and 211, and below 2. Cut by 336, and 344.

Finds: One waste flint flake (prehistoric); 2 unworked greenstone fragments.

9 **B(W)** **Layer**; 0.04m deep. A localised lens of burnt clay and charcoal. Appears only in W facing section. Above 8 and below 2.

10 **B(W)** **Fill** of 344 or **layer**; grey-brown slightly silty loam. Includes post-medieval pottery, stones and flecks of charcoal. Above 2, 8 and rab. Below 1, 11 and 12.

Finds: One late medieval pot sherd; one 18th century sherd; two hand-made brick fragments (18C); ten 18C-19C pot sherds; one hand-forged nail.

11 **B(W)** **Fill** of 341 or **layer**; sandy loam. Includes sand, charcoal, relatively few stones and flecks of lime/plaster. Above 10, 12 and 13. Below 1. Butts 15 and same as 14.

Finds: One retouched flint flake (Neolithic or Bronze Age; residual); six 17-18C pot sherds; one 19C sherd; one 18C brick fragment; one limpet and one whelk shell.

12 **B(W)** **Fill** of 342 or **layer**; grey-brown slightly silty loam. Very stony; medium sized stones. Above 10 and below 11. Essentially same as 10, but with stones.

Finds: Four un-dated mortar fragments; two bone fragments (possibly human). The bones were inspected by Dr Tony Thould who agreed that the bones were possibly human, and were the top end of

an ulna and part of a metacarpal.

13 B **Fill** of 343 or **layer**. Slightly silty loam with small and medium stones. Above rab and below 1, 11 and 12. Butts 15.

Finds: One sherd of Iron Age/Romano-British pottery; one post-medieval pot sherd; one 19C brick fragment; two Delabole slate fragments; seven bone fragments, possibly human. The bone fragments were inspected by Dr Tony Thould but were too small and fragmentary for him to be sure that they are human. The bones are very dense, either possibly having been under heavy stress or being the subject of disease.

14 B(E) **Fill** of 341. Brown loam with flecks of charcoal; small and medium stones; slates. Above 13 and below 1. Butts 15 and same as 11.

15 B **Wall**; 0.84m wide and 1.0m high in section. Matrix is of light brown earth, no lime. Medium sized stones form the faces; smaller stones the core, with the earth. Possibly a hedge. A few water rounded stones. Above 17 and rab. Below 1 and 16. Cut by 16 and butted by 13, 14, 18 and 19.

Finds: One sherd of 18-19C flowerpot, and two 17-18C brick fragments.

16 B **Cut and fill**; 0.23m wide and 0.14m deep in section. A small patch of cob/lime-rich mortar overlying wall 15. Few small stones. Below 1 and cuts 15. Butted by 18.

Finds: One late medieval pot sherd (15-16C).

17 B(W) **Fill** of 345. Dark brown silty loam with relatively few stones. Above rab and below 15 (?) and 19.

Finds: One Iron Age/Romano-British pot sherd.

18 B **Fill** of 346. Brown sandy loam with charcoal flecks, very few stones, a few sea shells and small lenses of sand. Above 19 and 20; below 1. Cuts 21 and butts 15 and 16.

Finds: Two 18-19C pot sherds; two 19C roof tile fragments; one 19C brick fragment; two mortar fragments; two iron fragments; 1 animal bone; 1 fish bone; 1 limpet shell.

19 B **Layer**, 0.5m deep, of brown loam with small/medium stones and a few flecks of charcoal. Above 17, 22-25, 345 and 349. Cut by 346 and 347. Possibly the same as 37.

Finds: One broken flint core (Prehistoric); one medieval pot sherd (13-15C); one clay pipe stem fragment (17C); one iron fragment; 2 animal bone fragments; 1 boar's tooth.

20 B(W) **Fill** of 347. Lighter brown loam with fewer stones than 19. Above 19 and below 18.

21 B **Layer** up to 0.56m deep. Light brown compact loam with a few bits of lime/plaster, a few flecks of charcoal and a few stones. Below 1 and cut by 346 and 348.

Finds: Four 18-19C pot sherds; one 18-19C clay pipe stem fragment; one shard of 18C green bottle glass; 4 brick fragments (18-19C); 3 mortar fragments; 1 oyster shell fragment.

22 B(W) **Fill** of 349, or **tipping layer**. Medium brown silty loam with few stones. Below 23 and 19.

23 B **Fill** of 349, or **tipping layer**. Medium brown silty loam with lots of stones (*c*70% stones). Above 22 and below 19 and 24.

Finds: Two 17-18C pot sherds; one 18-19C pan tile sherd; one 19C brick fragment.

24 B **Tipping layer**. Medium brown loam with few stones. Less silty than 22. Above 23 and below 19 and 25.

Finds: One 15-16C pot sherd.

25 B(W) **Fill** of 349, or **tipping layer**. Largely redeposited reddy orange rab with small stones and no charcoal or artefacts. Above 24 and below 19 and 37.

26 B **Fill** of 348. Light brown compact sandy loam with lots of charcoal flecks and a few bits of lime/plaster. Above 21, 27, 28, 37 and 39. Below 1 and cut by 43.

Finds: One 18-19C pot sherd; two fragments of clay pipe stem (18-19C); one fragment of green bottle glass (17-18C); 1 18C brick fragment; 1 hand forged nail; 1 slag fragment; 1 winkle shell.

27 B(W) **Fill** of 350, or **tipping layer**. Light brown loam with few stones and no charcoal. Above 29,

30 and 37. Below 26 and 28, and cut by 348.

Finds: Two 17-19C pot sherds; 1 hand forged nail; 1 whelk shell.

28 B(W) **Tipping layer**. Brown/grey sandy loam with charcoal flecks and few stones. Above 27 and 29, and below 26. Cut by 348.

29 B(W) **Layer**, up to 0.19m deep. Brown loam with lots of stones (*c*85%), and some slates and pottery. Above 30 and below 27 and 28.

Finds: One 17-18C pot sherd.

30 B(W) **Tipping layer**. Brown/grey silty loam with few stones and few charcoal flecks. Above rab and below 27 and 29.

Finds: One mortar fragment; one whelk shell.

31 B(E) **Layer**, 0.1m deep. Dark brown fine loam with lots of charcoal flecks and burnt soil and few stones. Above 32 and below 13. Butts 15.

32 B(E) **Layer**, 0.4m deep. Red/orange redeposited rab with roofing slates at base and some charcoal flecks. Above rab; below 13, 15, and 31.

Finds: Two fragments of cut and shaped Delabole roofing slate.

33 B(E) **Fill** of 351. Orange redeposited rab/loam, with some charcoal. Butts 15. Probably smear of rab left by JCB bucket.

Finds: Two fragments of animal bone.

34 B(E) **Layer**, 0.1m deep. Rab and lime; like mortar with very few stones. Above 19 and below 18.

35 B(E) **Fill** of 352. Dark brown silty loam with few stones. Above 42 and below 24.

Finds: One 18-19C brick fragment; two mortar fragments; one hand forged nail.

36 B(E) **Fill** of 354. Medium brown loam with charcoal and sand, modern glass and concrete. Below 1 and above 21 and 26.

37 B(E) **Fill** of 356, or **layer**. Brown loam with flecks of redeposited rab. Above 24, 40 and rab. Below 19, 21, 26, 39. Possibly the same as 19.

38 B(E) **Fill** of 355. Medium brown loam with some sand, charcoal, coal etc. Below 1 and cuts 26.

Finds: One clay pipe stem fragment (17-early 18C); one 18C brick fragment; one small slag fragment.

39 B(E) **Fill** of 358. Medium brown loam with charcoal flecks and small stones. Above 37, 44 and rab. Below 26 and cut by 43 and 359.

40 B(E) **Fill** of 353, or **layer**. Brown silty loam with flecks of rab and a few stones. Above 41 and below 37.

41 B(E) **Fill** of 353. Brown loam with dense layer of roof slates. Below 40.

42 B(E) **Fill** of 352. Brown silty loam with lots of medium stones and a few bits of white plaster. Below 35.

Finds: One large mortar fragment.

43 B(E) **Fill** of 359. Grey sand with coal, charcoal, and a few stones, but some large. Below 48. Cuts 1, 26, 39, and 44.

Finds: Two 18-19C pot sherds; eleven 19C pot sherds; 3 sherds of saltglazed drain pipe (19C); 1 rimshard of glass goblet (19C); 3 brick fragments; 2 iron fragments; 6 clinker fragments, 1 fragment of copper slag; 1 slate fragment; 1 lump of chalk; 6 animal bones; 2 bird bones; 3 oyster shells; 1 whelk shell.

44 B(E) **Layer**, 0.2m deep. Medium brown dense loam, with charcoal flecks, some small stones and brick fragments etc. Above rab and below 39. Cut by 359 and 361.

Finds: One pot sherd (early 16C); one brick fragment; 1 Delabole slate fragment; 2 animal bone fragments.

45 B(E) **Fill** of 361. Yellow sand with rab, lime and lots of stones (especially towards base). Debris from dismantled wall or building. Above 46 and below 43 and 47. Cut by 362.

Finds: Two medieval pot sherds (15-16C); one fragment of ceramic roofing tile (15-18C); one modern pot sherd (19C).

46 B(E) **Fill** of 361. As 45 but with no lime and more rab. Debris from dismantled building. Above rab and below 45.

47 B(E) **Fill** of 360, or **layer**. Medium brown loam with charcoal flecks, fragments of lime plaster and few stones. Above 45, 49, 51, and 52. Below 48.

Finds: One Beer flint side scraper (Neolithic or Bronze Age; residual); one sherd of modern pottery (18-19C); one sherd of roof tile (18-19C); 4 sherds of pan tile (18-19C); 1 crab claw.

48 B **Layer**, 0.1m deep. Dark brown humic loamy topsoil. Modern garden soil. Above 43, 47, 53, 63, 64, 67, 69, 71, 72, 73, 74, 76, 77, 78, 79, 81, 83A and rab. Below cobbled path (N end). Cuts 1 and cut by 83.

Finds: Two 18-19C pot sherds; one early clay pipe bowl (late 17C); 3 pan tile sherds.

49 B(E) **Tipping layer**, 0.58m deep in section. Sand. Deposited wet, as individual spade-fills are visible with very narrow (less than 1mm) layers of silt and sand. Probably dug from within the harbour. Above 50 and 51. Below 47 and 52.

Finds: Three sherds of 18-19C pot (one post-1830); 1 piece of clinker; 1 coal fragment; 1 winkle shell.

50 B(E) **Fill** of 362. Dark brown sandy loam with lots of charcoal. Lens at base of a cut. Above 51 and below 49.

51 B(E) **Layer**, 0.26m deep (max.). Medium brown loam with charcoal flecks and small stones. Above 58 and rab. Below 47, 49, 50, 52, 53, 54 and 55. Cut by 361, 362, 363 and 364.

Finds: Two 18C pot sherds; 2 fragments of clay pipe stem (18-19C); 3 sherds of terracotta pan tile; 1 sherd green glazed floor tile; 3 iron fragments; 2 brick fragments; 1 piece of coal; 2 animal bone fragments; 1 shell fragment.

52 B(E) **Fill** of 364. Dark brown sandy loam with lots of charcoal and flecks of lime plaster. Above 51 and below 47.

53 B(E) **Layer**. Medium brown slightly sandy soil with small stones and flecks of charcoal. Above 47, 54, 55, 57, 58, 60, 61 and 62. Below 48, cut by 63 and bonded with 56.

Finds: One iron fragment.

54 B(E) **Fill** of 363, or **layer**. Sand with bits of coal and silt. Possibly the same as 49.

55 B(E) **Fill** of 365. Stony medium brown loam. Above 51 and below 53 and 57.

56 B(E) **Lens** of sand, 0.06m deep. Not on west section. Bonded with 53.

57 B(E) **Fill** of 366. Yellowy redeposited rab with small stones and some slates. Above 51, 55, 58, 59, 60. Below 53.

58 B(E) **Layer**, 0.17m deep. Altered or redeposited rab, some above an iron-pan. Dirty rab with some brown or grey splotches. Above rab and below 51, 53, 57, 59 and 60.

59 B(E) **Fill** of 367. Medium brown sandy loam. Stony. Above 58 and 60, and below 57.

60 B(E) **Tipping layer**. Medium brown loam with charcoal and small stones. very similar to 53, above. Above 58 and below 53. Cut by 57 and 59.

61 B(E) **Fill** of 368, or layer. Medium brown loam, like 60. Above rab and below 53. Cut by 369.

62 B(E) **Fill** of 369. Medium brown loam with no stones and more charcoal than 61. Not visible on W side.

63 B(E) **Fill** of 370. Dark brown loam with small and medium stones. Fill of trench or pit. Above 53, 64, and 68. Below 48.

64 B(E) **Layer**, 0.3m deep. Medium brown loam with some stones. Above 65, 66, 67 68 and rab. Below 48.

Finds: One flint core (Neolithic/Bronze Age; residual); one early post-medieval pot sherd; three 18C pot sherds; one fragment of clay pipe bowl (17-early 18C).

65 B(E) **Fill** of 371. Medium brown loam with some charcoal flecks and pieces of mortar. Above 68 and rab. Below 64.

Finds: One sherd of post-medieval pot; four 18C brick fragments; 1 mortar fragment; 2 iron fragments (one possibly a key).

66 B(E) **Fill** of 372. Medium brown loam; stony with flecks of lime/plaster. Above rab and below 64 and 67.

67 B **Layer**, 0.22m deep. Light orange/brown loam with few stones and some charcoal flecks. Above 66 and rab and below 48 and 64.

Finds: One sherd of 15-16C pot; one sherd of 17-19C pot; 1 animal bone fragment.

68 B(E) **Altered rab**, 0.32m deep. A few charcoal flecks. Above an iron pan. Probably natural? Below 63, 64, and 65. Cut by 370 and 371.

69 B(E) **Lens** like layer, 0.1m deep. Medium brown loam with some charcoal, and lime plaster. Few stones. Above 67, 70 and 71. Below 48.

70 B(E) **Fill** of 373. Light brown sandy loam with some charcoal, plaster flecks, slates and small stones. Below 69 and 71. Cut by 374.

Finds: One clay pipe stem fragment (18-19C); one hand forged nail; 1 mortar fragment; 3 fragments of a rabbit or shrew jaw.

71 B(E) **Fill** of 374. Redeposited rab with charcoal flecks and fragments of slate. Above 70 and rab. Below 48 and 69.

72 B(W) **Layer**, 0.24m deep. Light brown sandy loam with charcoal and lime/plaster flecks, small stones and slates. Above 67 and below 48 and 74.

Finds: One sherd of 17-19C pot; 1 silvered copper-alloy button (19C); 1 animal bone fragment.

73 B(W) **Fill** of 376. Orangey light brown sandy loam with flecks of charcoal, lime, and some small and medium stones. Above 74, and below 48.

74 B(W) **Fill** of 375 and 377. Medium brown sandy loam with medium and small stones and slates. Above rab and below 48 and 73. Bonded with 75.

Finds: Two 17-18C pot sherds; one early 19C pot sherd; 1 shard of 19C glass; 2 animal bone fragments.

75 B(W) **Lens** of sand. Above 67 and 74. Bonded with 74.

76 B(W) **Layer**, 0.14m deep. Mortar dominant layer with small stones, bits of brick, and white limey mortar. Building debris. Above 74 and rab and below 48.

77 B(W) **Fill** of 378, or **layer**. Discoloured rab with brown and rusty streaks; very distinct from clean rab. Below 78, 79 and 80. Cut by 379 and 380. Possibly the same as 81.

78 B(W) **Fill** of 379. Light brown loam with flecks of charcoal (few) and fragments of slate and burnt earth. Above 77 and rab. Below 48.

79 B(W) **Layer**, 0.12m deep. Medium brown loam with small stones, slates, and flecks of charcoal. Above 77, 80, 81, 82 and rab. Below 48 and 83A.

Finds: Two sherds of 16C pot; 1 sherd of pre-medieval pot; 1 sherd of 17-18C pot; 1 clay pipe stem fragment (18C); 2 iron fragments.

80 B(W) **Fill** of 380. Medium brown loam with small stones, slates, and flecks of charcoal. Above 77 and below 79. Probably the same as 79.

81 B(W) **Fill** of 382, or **layer**. Discoloured rab with brown and rusty streaks. Very distinct from clean rab. Above rab and below 48, 79, 82 and 83A. Possibly the same as 77.

82 B(W) **Fill** of 381. Medium brown loam, with c70% stones. Above 81 and below 79.

Finds: One flint flake (prehistoric); Two sherds of 13-15C pot.

83 B(W) **Layer**, 0.18m deep. Layers of cobbles, pebbles and chippings of pathway; 4 distinct layers visible: from top; 2 layers of chippings; hard rab/concrete; rounded pebbles (less than 3cm max.). Above 81, 84 and 85. Below modern gravelled path. Cuts 48.

83A B(W) **Layer**, 0.06m deep. Light brown sandy loam. Above 79 and 81. Below 48.

84 B(W) **Layer**, 0.08m deep. Medium brown loam with small to medium stones (c50%). Above 81 and below 83.

85 B(W) **Layer**, 0.1m deep. Medium brown loam with charcoal flecks, slates, and bits of lime. Apparently a rubbish dump. Above 81 and below 83.

100 D **Garden soil** of lawn, 0.2-0.3m deep. Medium grey/brown loose loam with few small stones. Above 101, 102, 189, 195 and 198. Cut by BT cable trench.

101 D **Fill** of 303. Mix of soft loam and redeposited rab with charcoal flecks and small stones. Above 123 and below 100.

102 D **Layer**, 0.36 to 0.72m deep. Orange/brown redeposited rab, medium soft with charcoal flecks and small and medium stones. Redeposited rab as part of a landscaping layer. Above 103, 110, 117, 124, 136, 137 and 150. Below 100 and 189. Cut by 303.

Find: One 16-18C pot sherd; one pot sherd (1720-1800); 1 clay pipe stem fragment (18-19C); 1 brick/tile fragment.

103 D(E) **Layer**, 0.12m deep. Medium brown sandy loam with slates, small stones, and flecks of lime and charcoal. Demolition layer pre-dating the latest cobbled floor (110). Will have been a floor at some period? Above 104 and 105, and below 102. Cut by 110 and 301. Possibly the same as 125 (W side).

104 D(E) **Layer**, 0.04m deep. Orange/brown, fairly compact rab-based soil with charcoal and lime flecks. Above 105 and below 103. Cut by 109 and 301. Perhaps a layer derived from digging to the south. Possibly the same as 126 (W side).

105 D(E) **Layer**, 0.13m deep. Dark grey brown silty loam, medium soft. Flecks of charcoal and lime and small to medium stones. A large stone embedded into this layer protrudes into the layer above, 104. Possibly a demolition/waste ground layer. Above 106 and 107, and below 103 and 104. Cut by 301.

106 D(E) **Layer**, 0.2m deep. Brown loam with building debris including slates, lime mortar and small stones. Layer has level top but bottom slopes down from north to south. Contained within a cut including 107, and possibly 108. Above 107; below 105 and 109.

Finds: One sherd of pot (1800-1830); 1 brick fragment (18-early 19C); 2 South Devon slate fragments; 4 mortar fragments.

107 D(E) **Layer**, 0.15m deep. Medium brown loam containing small and medium stones, charcoal and some lime. Uneven layer within a cut also containing 106 and possibly 108. Above 108 and 122 (cobbles); below 105 and 106.

Finds: One fragment of hand-made Dutch brick (17-18C); two fragments of ceramic roofing tile (17-18C); 1 sherd of 18C pot.

108 D(E) **Layer**, 0.06m deep, max. Orange/brown-grey silty loam with large quantities of charcoal. Above rab; below cobbles (122) and 107. Burning layer or a dump of ashes.

109 D(E) **Layer**, or **fill** of shallow pit (301), to 0.2m deep Medium brown silty loam with small and medium stones. Uneven layer in cutting; beneath cobbled floor (110). Above 106; below 110. Cut by 112 and 300.

110 D **Cobbled floor.** Water-rounded stones in light brown loam to form cobbled floor of fish cellar or yard. Not level; slopes to N, but also has an uneven plane. Consistent stone size. Above 109, 116, 119, 135, 138, 142, 144, 149, 175, 184, 300, and 301. Below 100, 102, 117, 118, 150, 183, and 198. Possibly fill of 301. Cut by 176, 177 and 185. Same as 195.

111 D(E) **Smear** of redeposited rab across incompletely cleaned section; obscures junction between 106 and 113/115.

112 D(E) **Fill** of 300 or **layer**, 0.21m deep. Medium brown loam with c 85% of fabric composed of slates and lime mortar. Part of fill of shallow pit (300). Debris from building with scantle slate roof. Above 113 and below 116.

113 D(E) **Layer**, 0.1m deep. Dark brown loam with lots of charcoal flecks. Part of fill of shallow pit (300). Above 114 and 115; below 112.

114 D(E) **Layer**, 0.02m deep. Loose charcoal, part of fill of 300. Possibly *in situ* burning? Above 115 and below 113.

115 D(E) **Layer**, 0.26m deep. Light brown/orange silty loam with charcoal flecks and small-medium stones. Above 122 and below 113, 114 and 120. Cut by 300, 113, 114, and 121 (?). Butted by 121 (?)

116 D(E) **Layer**, 0.06m deep. Grey silty loam with charcoal flecks and slates. Above 109 and 112 and below 110. Possibly fill of 300 and 301. Possibly cut by 110. Thin layer below cobbles, and possibly landscaped or levelled to accommodate them.

Finds: Three clay pipe stem fragments (Late 17-18C); 2 fragments of ceramic ridge tile (17-18C); 1 hand forged nail.

117 D(E) **Layer**, 0.12m deep. Medium grey/brown loam with charcoal and small-medium stones. Above 110 and 118; below 102. Uneven layer on top of cobbled floor (110); covers small charcoal smear (118). Possibly the same as 137 (W side).

118 D(E) **Layer or spread**, 0.03m deep. Small area of charcoal on floor 110; below 117.

119 D(E) **Layer**, 0.32m deep. Red with patches of grey/brown rab/loam, with slates, charcoal and small stones. Part building debris, part landscaping ? Above 120, 121 and 200; below 110. Cut by 300 and 302.

Finds: One sherd of 17-18C pot.

120 D(E) **Layer**, 0.03m deep. Dark brown/grey silty loam with lots of charcoal. Above 115 and 121; below 119. Cut by 300.

Finds: Three fragments of iron.

121 D(E) **Layer**, 0.26m deep. Orange/brown loam with medium large stones. More orange than 115 (to north). Above 122, 202 and possibly also 115. Below 119 and 120. Cut by 302. The same as 200, and possibly the same as 147 (W side).

122 D **Cobbled floor**, 0.08m deep. Medium brown loam with water-rounded cobbles *in situ*. Rab-cut cobbled floor. Above rab, and possibly also 201 and 202; below 107, 115, 121, and 200. Possibly the same as 131.

Finds: Two clay pipe stem fragments (17C).

123 D(W) **Layer**, 0.03m deep. Sandy grey silty loam in channel dug for electricity cable; created while temporarily left open ? Above 102 and below 101. Part of fill of 303.

124 D(W) **Layer**, 0.2m deep. Redeposited rab with bits of lime and small and medium stones. Above 125, and below, or the same as, 102.

125 D(W) **Layer**, 0.09m deep. Grey loam with charcoal and lime flecks. Uneven; one of a series of tip layers? Above 126 and 135; below 102, 124 and 136. Cut by 308. Possibly the same as 103 (E side).

126 D(W) **Layer**, 0.12m deep. Orange silty loam with lots of charcoal and lime. Below 127 and above 125 and 135. Cut by 307. Possibly the same as 104 (E side).

127 D(W) **Layer** of light green and black ash or other burnt material. Tipped from fireplace/hearth? Above 128, 129, 132, and 134. Below 126 and 135. Cut by 307.

128 D(W) **Cobbled floor** of water rounded cobbles in medium orange/brown loam. Above 130 and below 127. Cut by 304. Butts 129.

129 D(W) Piece of **dressed granite** on same level as cobbled floor 128 to south. Above 131; below 127. Butted by 128 and 130.

130 D(W) **Layer**, 0.03m deep. Orange loam at base of cobbled floor (128). Above 131 and below 128. Cut by 304.

131 D(W) **Layer**, 0.22m deep; uneven bottom. Grey loam with charcoal and lime flecks, and small stones. Three large stones at south end have tops flush with the top of this layer, suggesting it may have been a paved or cobbled floor. Above rab and below 129, 130 and 132. Cut by 305. Possibly the same as 122.

Finds: Four fragments of ceramic roofing tile, ridge and pan (18C).

132 D(W) **Layer**, 0.11m deep, or fill of 304. Medium brown loam with lots of charcoal flecks. Above 131 and below 127. Cut by 305.

133 D(W) **Fill** of 305. Grey dense silt with no stones. Above rab and below 134. Cut by 306.

134 D(W) **Fill** of 305. Grey loam with medium stones, slates and flecks of charcoal. Above 133, and below 127 and 135. Cut by 306 and 307.

135 D(W) **Layer**, 0.14m deep, or **fill** of 307. Orange loam with small stones and charcoal flecks. Above 126, 127, and 134; below 110 and 125. Cut by 306.

136 D(W) **Fill** of 308. Building debris with lime, slates etc. Above 110 and 125 and below 102 and 137.

137 D(W) **Layer**, 0.14m deep. Grey brown sandy loam with few stones. Above 110 and 136 and below 102. Possibly the same as 117 (E side).

Finds: One brick fragment (19C); 1 shard of glass (Late 18-19C); 1 hand forged nail; 1 animal bone.

138 D(W) **Cavity**, 0.65m deep, containing large pot (broken in JCB excavation). Above rab and possibly below 110, but perhaps contemporary with it. Cuts 133, 134, 135, 139, 140, 141, 142, 305, and 309. Same as 306. Pot as sump for fish oil?

Finds: Eighteen sherds of large South-East Asian stoneware storage jar (Martabani) (18C).

139 D(W) **Fill** of 309. Brown/grey silt with small and medium stones. Above rab and below 140. Cut by 306.

140 D(W) **Layer**, 0.2m deep. Orange silty loam with small/medium stones and charcoal flecks and lime. Above 122, 139, 146, and 147. Below 141 and 145. Cut by 306 and 310.

141 D(W) **Layer**, 0.08m deep. Orange silty loam with small -medium stones, lime and no charcoal. Above 140 and below 142. Cut by 306 and 310.

142 D(W) **Layer**, 0.21m deep. Orange loam with few stones and no charcoal. Above 141, 142 and 145, Below 110 and 148. Cut by 306 and 311.

143 D(W) **Layer**, 0.1m deep. Charcoal and ash. Above 144 and below 142. Cut by 311.

144 D(W) **Layer**, 0.59m deep. Orange silty loam with charcoal and lime. Contains lenses of dumped material. Above 145, 147, 174 and 182. Below 110, 143, 148, 149 and 175. Cut by 312. Merges with 147.

145 D(W) **Fill** of 310, or **layer**, 0.12m deep. Ash/charcoal; probably dumped. Above 140, 146 and 147; below 142 and 144.

Finds: Twelve fragments of clay pipes, all dated c1680-1710; 1 animal bone fragment.

146 D(W) **Layer**, 0.02m deep. Dump of charcoal and ash. Above 147 and below 140, 144 and 145.

Finds: One sherd of 16-17C pot; 2 sherds of 18C pot; 1 bone fragment; 1 coal fragment.

147 D(W) **Layer**, 0.28m deep. Orange grey silty loam with charcoal flecks. Includes fish press-weight. Above 122 and below 145 and 146. Possibly the same as 121/200 (on E side). Merges with 144.

148 D(W) **Fill** of 311, or **layer**, 0.11m deep. Brown/grey loam with slates, lime and charcoal. Above 143, and 144. Below 149.

149 D(W) **Layer**, 0.08m deep. Orange loam with a few lime and charcoal flecks. Above 144 and 148; below 110.

150 D(W) **Layer**, 0.02m deep. Spread of ash/charcoal on top of cobbled floor (110), and below 102.

151 C(E) **Wall**. Two large stones in section, 0.2m high, 0.6m wide in section. Grey brown sandy loam. Below kerb of flower bed. Cuts 152 and possibly 153; butted by 152 and possibly 153.

152 C **Layer** of granite gravel. Above 153 and butting 151 and 330.

153 C **Path**. Light green/grey gravel with granite chips. Above rab, 154 and 165; below 152. Butts 151 and 330.

Finds: One sherd of 18-19C pot.

154 C **Layer**, 0.16m deep. Rounded pebbles, gravel, small. Above 155, 156, 163, 164, 167, 172, and 173. Below 153 and 166. Butts 330.

155 C **Fill** of 327, or **altered rab**, with a few charcoal flecks. Uneven bottom; possibly natural, but charcoal suggests possible human intervention. The rab is browner, damper and darker than the unaltered rab. Above rab and below 154, 164, 326, and 328. Cut by 164, 328 and possibly 330. Possibly the same as 173.

156 C **Walls of drain/bolt**. Each is 0.3m high and 0.19m wide. Granite stones bonded by Portland cement and possibly lost its lintel to JCB. Above 157 and below 154. Part fill of 328. Butted by 158 to 163 (silts).

157 C(E) **Layer**, 0.02m deep. Grey sandy silt at base of cut for drain; beneath walls, and probably the product of escaped water. Above rab and 155. Below 156 and 158. Fill of 328.

158 C **Layer**, 0.025m deep. Pale grey sand with small pebbles within drain. Above slate base of drain and 157. Below 159. Butts 156.

159 C **Layer**, 0.018m deep. Dark grey sand with small pebbles within drain. Above 158 and below 160. Butts 156.

160 C **Layer**, 0.025m deep. Brown/grey silt within drain. Above 159 and below 161. Butts 156.

161 C **Layer**, 0.015m deep. Green/grey silt within drain. Above 160 and below 162. Butts 156.

162 C **Layer**, 0.04m deep. Brown/grey silt within drain. Above 161 and below 163. Butts 156.

163 C **Layer**, 0.05m deep. Dark grey silt within drain. Above 162 and below 154 or cavity/roof of drain. Butts 156.

164 C(E) **Fill** of 329, or **layer**, 0.32m deep. Medium brown loam with small and medium stones and charcoal flecks. Above rab and 155, and below 154. Probably the fill of the gateway trench.

165 C(W) **Gravel path** made up of very small rounded pebbles. Above 166 and 172 and below 153. Butts 330.

166 C(W) **Layer**, 0.03m deep. Granite/lime mortar road surface. Above 154 and 172, and below 165.

167 C(W) **Fill** of 332, or **layer**, 0.42m. Orange/brown loam with lots of medium stones and few charcoal flecks. Above rab and below 154. Cut by 333, and possibly the same as 155 and 173.

Finds: Two stone fragments (one from lime burning).

168 C(W) **Fill** of 333. Brown silty loam with lot of water-rounded small pebbles. Lowest fill of pit/trench 333. Above rab and below 169.

169 C(W) **Fill** of 333. Medium brown loam with bits of rab, a few charcoal flecks and small-medium stones. Includes two particularly large stones which suggest it may have been a wall, although there is no continuation on the eastern side of the trench. Above 168 and below 170 and 171.

Finds: Two Delabole slate fragments; 1 mortar fragment.

170 C(W) **Fill** of 333. Redeposited rab with a few flecks of charcoal and small slates. Above 169 and below 154 and 171.

Finds: One fragment of flint core (prehistoric); 1 clay pipe stem fragment (18C); 1 fragment of Delabole slate; 1 fragment of coal.

171 C(W) **Fill** of 333. Grey brown sandy loam with lumps of limey mortar and a few flecks of charcoal. Above 169 and 170, and below 154 and 172.

Finds: One sherd of Late 18C pot; 2 mortar fragments.

172 C(W) **Layer**, 0.13m deep. An uneven spread of small angular granite stones and bits of lime-based plaster; possibly a demolition layer. Above 171, and below 154, 165 and 166.

Finds: One sherd of 14-15C pot; 1 sherd of post-medieval pot; 1 brick fragment (18C); 1 iron fragment; 1 mortar fragment; 1 slate fragment.

173 C(W) **Fill** of 334. Altered rab with very few flecks of charcoal. Damper, browner and darker than

natural rab. Above rab, and below 154. Cut by 333. Possibly the same as 155 and 167.

174 D(W) **Layer,** 0.07m deep. Densely packed broken roofing slates; part of 144.

175 D(W) **Fill** of 312, or **layer**, 0.24m deep. Medium brown loam with fragments of lime, charcoal and slate. Above 144, 178, 179, 180 and 184. Below 110 and 176. Cut by 313.

176 D(W) **Fill** of 313, or **layer**, 0.06m deep. Ashes and fish scales. Above 175, and below 177.

177 D(W) **Fill** of 313, or **layer**, 0.05m deep. Dense limey mortar; possibly a mixing place? Above 176, and below 102.

178 D(W) **Layer**, 0.42m deep. Orange/medium brown clayey loam with medium stones, slate and charcoal. Above rab and below 144, 179 and 312. Cut by 182 (?), 312, and 314. Possibly the same as 202 (E side).

Finds: One brick fragment (18C); 1 glass shard (18C); 1 iron fragment.

179 D(W) **Layer**, 0.16m deep. Orange/brown redeposited rab with charcoal and slates. Above 178, and below 175 and 180. Cut by 312 and 314.

180 D(W) **Fill** of 314 (with 181). Dark brown loose loam, with lots of slates, lime plaster, bricks and artefacts. Above rab and 181, and below 184. Possibly cut by 312. Possibly the same as 203 (E side).

Finds: Two sherds of 18C pot; one sherd of 19C pot; 2 clay pipe stem fragments; 2 fragments of terracotta roofing tile; 1 Delabole slate fragment; 2 hand forged iron nails; 1 animal bone fragment.

181 D(W) **Fill** of 314. Medium brown clayey loam with few stones. Above rab and below 180. Possibly suggests that pit 314 was open for a period, this possibly being a slump from the south.

Finds: One flint pebble core (prehistoric); 2 Delabole slate fragments.

182 D(W) **Possible wall**. Large rectangular stone set vertically on end. Possibly the bottom course of a wall. Cobbling 122 appears to abut it to the north. Stone is 0.26m high and 0.2m wide. Above rab and below 144 and 147. Butted by 122 (?) and 178 (?)

183 D(W) **Layer**, 0.02m deep. Dark grey ashes and charcoal. Possibly a floor layer. Above 110 and below 102.

184 D(W) **Fill** of 314, or **layer**, 0.26m deep. Orange/medium brown loam with slates, stones and flecks of charcoal and lime. Above 180 and below 110, 175 and 185. Cut by 312 and 315.

185 D(W) **Fill** of 315, or **layer**, 0.23m deep. Orange/medium brown loam with small stones, slate, charcoal and lime. Above 184, 186, 188, and 190. Below 102.

186 D(W) **Fill** of 316, or **layer**, 0.3m deep. Above rab, and below 185 and 188. Cut by 314, 315 and 317.

Finds: One sherd of prehistoric/Romano-British pottery; 1 shard of 18C glass; 1 iron fragment.

187 D(W) **Layer**, 0.18m deep. Medium brown loam with small stones. Sloping layer. Above rab, and below 188. Cut by 196 and 316. Possibly the same as 205 (E side).

188 D(W) **Fill** of 317, or **layer,** 0.26m deep. Orange/medium loam with charcoal, slates and small stones. Below 185 and 190; above 186 and 187. Cut by 315.

Finds: One flint flake (prehistoric).

189 D(W) **Layer**, 0.34m deep. Redeposited rab with charcoal flecks, a few artefacts and small or medium stones. Above 102, 190, 191, 192, and 195. Below 100.

190 D(W) **Layer**, 0.05m deep. Medium grey sand with lime mortar fragments. Above 188, and below 102 and 189. Cut by 315, and butting 196.

191 D(W) **Layer**, 0.16m deep. Orange/medium brown loam with small stones, slates, and mortar fragments. Above 194 and 196. Below 192 and 189. Butts 193.

192 D(W) **Layer**, 0.02m deep. Small thin layer of black ashes on cobbles. Above 191 and 195. Below 189.

193 D(W) **Layer**, 0.06m deep. Medium brown loam with fragments of slate and charcoal. Above rab, 194 and 197; below 195. Butts 191.

Finds: One clay pipe stem fragment (18-19C); 4 pan tile fragments (18-19C); 1 Delabole slate fragment; 1 iron fragment.

194 **D(W)** **Fill** of 318. Medium brown loam with slates, lime mortar and charcoal. Below 191, and 193. Butts 196.

195 **D(W)** **Cobbled floor**. Rounded stones in medium brown loam with pot fragments intermixed. Floor ends at the line of wall 196, so probably contemporary. Above 193 and below 100, 189 and 192.

Finds: One sherd pot (1670-1770).

196 **D(W)** **Wall foundation**. Granite stones in flat-bottomed trench. Wall 0.66m wide and now 0.24m high. Above rab and below 191 and 193. Cuts 187 and 188 and butted by 190 and 194. Same as 208 (E side).

197 **D(W)** **Fill** of 319, or **layer**, 0.3m deep. Reddy brown; possibly natural rab although darker than natural. Above rab and below 193. Cut by 320. Probably the same as 210 (E side).

198 **D** **Layer**, 0.14m deep. Redeposited rab with stones, many of which are rounded (possibly cobbles). Above 195 and below 100.

199 **D(W)** **Fill** of 320. Medium brown loam with very few stones (no slates or other artefacts). Above rab and below 195.

Finds: One flint chip (prehistoric).

200 **D(E)** **Layer**, 0.19m deep. Orange brown loam with medium/large stones. Above 122 and 202, and below 119. Cut by 302, and the same as 121. Possibly the same as 147 (W side).

201 **D(E)** **Fill** of 321. Grey orange clayey loam with bones. Above rab and below 202.

Finds: Fifteen human bone fragments, early medieval.

202 **D(E)** **Fill** of 322. Orange brown loam with large stones. Above rab, 201 and 205. Below 122 (?), 200, 203, and 204. Cut by 302 and 323. Possibly the same as 178 (W side).

Finds: One clay pipe bowl (1690-1730); 1 sherd pegged tile (18C); 2 shards of 18C glass; 1 hand forged nail.

203 **D(E)** **Fill** of 302. Medium brown loam with slate, charcoal, stones and artefacts. Above 119, 200 and 202. Below 110 and 204. Cut by 323. Possibly the same as 180 (W side).

Finds: One sherd of pot (1630-1710); 1 sherd of 17C pot; 2 clay pipe bowls (early 18C); 2 fragments of terracotta roof tiles (18C); 1 animal bone fragment.

204 **D** **Fill** of 323, or **layer**, 0.28m deep. Orange/brown redeposited rab with slates, stones and charcoal. Above 202, 203 and 205. Below 110 and 206.

Finds: One hand forged nail.

205 **D(E)** **Fill** of 324. Medium brown clayey loam with charcoal flecks and few stones. Above rab and below 204 and 323. Cut by 322 and 323. Possibly the same as 187 (W side).

206 **D(E)** **Layer**, 0.03m deep. Grey brown sandy loam with charcoal, lime, slate and small stones. Above 204, 207, and possibly 208. Below 110. Possibly the same as 209.

Finds: One sherd of pot (1740-1770); 1 clay pipe stem fragment (18C); 1 brick fragment (18-early19C); 1 coal fragment; 1 animal bone.

207 **D(E)** **Layer**, 0.22m deep. Medium brown clayey loam with less charcoal and lime than 206. Above rab and below 206. Butts 208. Possibly cut by 208 and 323.

208 **D(E)** **Wall/foundation**. Medium stones (0.24m max) roughly laid, closely packed in foundation trench, 0.54m wide and 0.26m deep. Above rab and below 206 and 209. Cuts 210. Possibly butts 207. Same as 196 (W side).

209 **D(E)** **Fill** of 325, or layer, 0.16m deep. Grey brown sandy loam with lots of charcoal flecks and few stones. Above 210 and below 110. Cut by 208.

Finds: One sherd of 16C pot; 1 sherd of pot (1680-1770); 1 clay pipe stem fragment (17C).

210 **D(E)** **Layer** of reddy brown coloured rab above an iron pan. Above rab and below 110. Cut by 208

and 325. Probably the same as 197 (W side).

211 **B(E)** Fill of animal hole, or similar. Below 8 and above rab.

Finds: One iron fragment.

212 **B(W)** **Layer**, 0.2m deep. Sandy silty loam with small stones, pottery and some charcoal flecks. Above 213, 215, 338 and rab. Below 1.

Finds: One flint flake (prehistoric); one chert blade (Mesolithic ?); 38 sherds of early medieval pot (2-12C); 4 sherds of 15-17C pot; 1 sherd of 15-16C pot; 1 sherd of 15C pot; 1 sherd of late medieval ridge tile; 1 flint pebble; 4 quartz pebbles; numerous small bone fragments (possibly human?)

213 **B(W)** **Fill** of 339. Beige/brown silty rab, gleyed soil with lots of medium sized stones. Includes leaf arrowhead. Above 214 and below 212.

Finds: Leaf-shaped arrowhead (Neolithic).

214 **B(W)** **Fill** of 339. Mixed rab above iron pan; white and yellow patches. Above 216, and below 213.

215 **B** **Fill** of 338. Mixed rab and soil; gravelly decayed rab. Fill of grave. Above rab and below 212.

Finds: One prehistoric rubbing/hammer stone; one possible prehistoric whetstone; 19 sherds of pre-medieval pot; 9 quartz pebbles; 1 hand forged nail.

216 **B(W)** **Iron pan** at base of 339.

217 **B** **Fill** of 337. Compact brown soil with stones, flecks of charcoal, and post-medieval pottery. Above 218, 219 and rab. Below 1.

Finds: One chert flake (prehistoric); three 15-16C pot sherds; 1 sherd of 16-17C pot; 1 fragment of late medieval ridge tile; 1 animal bone fragment; 1 chalk lump.

218 **B(E)** **Layer** of orange/brown silt, very compact with very few stones, and some slates. More grit than average floor? Above 219 and below 1 and 217.

Finds: Two sherds of 15-16C pot.

219 **B** **Layer** of dense charcoal and burnt soil at the base of 337, at its north end. Possibly burnt *in situ*. Below 217 and 218.

220 **B(W)** **Layer** of redeposited rab in foundation trench for wall 221. Very few flecks of charcoal. Above rab and below 221.

221 **B(W)** **Wall**. Large granite stones, undressed but roughly rectangular with smaller stones infilling, including two parts of a broken mueller stone. Some slates used for trigging; rab-based mortar. Some facing visible. In section, the walling has small/medium stones as core between two faces, 0.9m wide. Stands to 0.6m high.

222 **B(W)** **Layer** of debris from demolition of 221. Pieces of plaster, slates, small stones and medieval pottery.

223 **B** **Natural rab**; orange yellow.

224 **B** **Fill** of 335. Grey silt with large granite stones. Above iron pan and rab; below 225.

225 **B** **Fill** of 335. Brown compact loam with small stones. Above 224 and below 1.

Finds: One flint flake (prehistoric); 1 Iron Age pot sherd.

226 **B** **Spoil**. General spoil from area B.

Finds: Numerous artefacts from prehistoric to 19th century.

227 **B** **Spoil** from the first 10m east of the pillbox; west of Mackerel Bank.

Finds: Numerous artefacts, including 40 late prehistoric pot sherds

228 **A** **Spoil** to the west of the pillbox and Mackerel Bank.

Finds: Few artefacts, including 1 late prehistoric pot sherd.

229 **B** **Spoil** between 20 and 50m east of pillbox.

Finds: Several artefacts including medieval sherds.

230 B(E) **Irregular pit** containing large stones, slates etc. Cuts east end of grave 338. Not fully recorded.

Finds: Nine sherds of late prehistoric pot; 3 sherds of 15-16C pot.

231 D **Spoil** in northern 15m, ie north of fuschia hedge.

Finds: Numerous finds, mainly 18-19C, but a few medieval pot sherds.

232 D **Spoil** between gatehouse and fuschia hedge.

Finds: Several finds, mainly 18-19C.

233 A **Topsoil.** Grey-brown loam with few stones. Above 234, 235and 237. Butts 236.

Finds: One sherd of late prehistoric pot.

234 A **Probably natural rab**; reddy orange. Uneven bottom. No charcoal. Above rab and below 233, 236, 237 and 335.

235 A **Fill** of 335. Medium brown loam with some charcoal flecks, small and medium stones and some prehistoric pottery. Quern stone found at base of layer. Above 234 and below 233. Butts 236.

Finds: Ten sherds of later prehistoric pot; 3 prehistoric flint flakes.

236 A **Possible wall.** Two large stones (one protrudes through soil) and one medium sized stone; at lower side of levelled area. Possibly prehistoric walling. Above 234 and 335. Below 233.

237 A **Possible wall or bank.** Bank of medium stones (typically 0.2m across) at top end of levelled area. Visible in both sides of the trench. Above rab and below 233. Possibly within 234.

300 D(E) **Cut,** 0.32m deep and 1.3m wide in section. Gentle slope (*c*45°) to N, and steeper slope (*c*80°) to S. Flat-bottomed. Below 110 and 116. Filled by 112, 113 and 114. Cuts 109, 115, 119 and 120.

301 D(E) **Cut,** 0.18m deep in section. Steep cut (*c*85°). Possibly contains cobbled floor (110). Above 106 and filled by 109 and possibly 110. Cuts 104 and 105, and possibly 103.

302 D(E) **Cut,** 0.62m deep and 1.26m wide in section. Round-bottomed with sloping sides, *c*65°. Below 110 and 204. Filled by 203. Cuts 119, 120 and 202. Cut by 323.

303 D(E) **Trench,** 0.44m deep and 0.37m wide in section. Vertical sides and flat bottom; contains electricity cable. Below 100. Filled by 101 and 123. Cuts 102.

304 D(W) **Cut,** 0.11m deep in section. Flat-bottomed and vertical N side; cut to S by 305. Above 131; below 127. Filled by 132. Cuts 128 and 130, and cut by 305.

305 D(W) **Cut/pit,** 0.35m deep and 0.37m wide in section. Bowed sides. Cut to S by 306. Above rab and below 127 and 135. Filled by 133 and 134. Cuts 131, 132, and 304, and is cut by 306 and 307.

306 D(W) **Pit/pothole,** 0.7m deep and 0.65m diameter. Above rab and below 110. Contained large pot (broken on trench cutting) used as sump for fish oil. Filled by 138. Cuts 139-142, 305, 307, 309, and rab.

307 D(W) **Cut,** 0.22m deep, and 0.65m wide in section. Shallow cut, *c*25° to N. Below 110 and 125. Filled by 135. Cuts 126, 127, 134, and 305. Cut by 306.

308 D(W) **Cut,** 0.08m deep, 0.84m wide in section. Very shallow cut (*c*15° to N) Above 110 and 135, and below 102 and 137. Filled by 136. Cuts 125.

309 D(W) **Cut,** 0.34m deep and 0.6m wide in section. Round-bottomed cut/pit, average 45° sides. Above rab and below 140. Filled by 139. Cut by 306.

310 D(W) **Cut,** 0.13m deep, and 2.2m wide in section. Shallow layer with sharp N edge (80°). Below 142-144, and filled by 145. Cuts 140 and 141, and possibly 146.

311 D(W) **Cut,** 0.11m deep and 1.18m wide in section. Shallow cut with slight curves on each side (*c*10°). Below 149 and filled by 148. Cuts 142-144.

312 D(W) **Cut,** 0.26m deep and 1.7m wide in section. Shallow, gently sloping, curved sides, *c*30°. Below 110, and filled by 175. Cuts 144, 178-180, and 184. Cut by 313.

313 D(W) **Cut**, 0.1m deep and 0.7m wide in section. Small shallow cut above 175 and below 102. Filled by 176 and 177. Cuts 110, 175 and 312.

314 D(W) **Cut/pit,** 0.72m deep and 1.15m wide in section. Deep and large; N side 80°, and S side 60°. Partly filled by slump (181) on shallower S side. Not bottomed in section; goes deeper. Above rab and below 110. Filled by 180, 181 and 184, Cuts 178, 179, and 186. Cut by 312 and 315.

315 D(W) **Cut,** 0.24m deep and 0.92m wide in section. Shallow gently curving sides *c*20° to S and *c*30° to N. Above 184, 186, 188, and 190, and below 102. Filled by 185. Cuts 110, 184, 186, 188, and 190.

316 D(W) **Cut,** 0.34m deep in section. Curving cut to S (60°). Above rab and possibly 181; below 185. Filled by 186. Cuts 187, and is cut by 314, 315, and 317.

317 D(W) **Cut**, with gently curving bottom, *c*70° to N and *c*20° to S. Above 187 and below 185 and 190. Filled by 188. Cuts 186 and possibly also 187. Cut by 315. Butts 196.

318 D(W) **Cut/foundation trench**, 0.24m deep and 0.78m wide. Fairly flat-bottomed, and filled with wall/foundation. Above rab, and below 191 and 193. Filled by 194 and 196. Cuts 187 and rab, and possibly 188. Butts 190 and possibly 188.

319 D(W) **Possible cut**, 0.32m deep and 1.0m wide in section. Possibly natural. Above rab and below 193 and 195. Filled by 197 and cut by 320.

320 D(W) **Pit/trench/cut**, 0.44m deep and 0.46m wide. Cleaned back to 0.25m into side of trench and shown to continue. Flat-bottomed; *c*90° to S and 80° to N. Above rab and below 193 and 195. Filled by 199. Cuts 197 and rab.

321 D(E) **Pit/trench**, 0.32m deep, and 0.52m wide. Vertical side to N and 80° to S. Not bottomed in section. Below 202 and filled by 201. Cuts rab, and cut by 122 and 322.

322 D(E) **Cut**, 0.52m deep and 2.2m wide. Gentle slopes and uneven bottom, *c*25° to N and 60° to S. Below 122, 200, 203 and 204. Filled by 202. Cuts 201, 205 and rab, and cut by 302 and 323.

323 D(W) **Cut**, 0.3m deep, and 3.44m wide. Gentle curving slopes and bottom. Below 102, 110, and 206. Filled by 204. Cuts 202, 203, 205, 207, 302, 322 and 324.

324 D(W) **Cut**, 0.18m deep and 1.86m wide. Gently sloping to S (*c*20°). Above rab and below 204. Filled by 205. Cuts rab and is cut by 322 and 323.

325 D(W) **Cut**, 0.14m deep and 3.4m wide. Sharp cut to S (*c*80°) and flat-bottomed. Below 110 and filled by 209. Cuts 210 and is cut by 208.

326 C(E) **Pit/trench,** 0.13m deep and 0.66m wide. Steep straight cut, *c*80° to N; shallow, *c*35° to S. Flat bottomed. Not on W section. Filled by 154 and cuts 155.

327 C **Possible cut**. Uneven bottom and possibly natural. Above rab. Filled by 155. Cuts rab and is cut by 326, 328, and 329. Possibly the same as 332 and 334.

328 C **Drain**, 0.47m deep and 0.82m wide. Granite walled drain with slate floor and probably a stone roof (lost from section), within a trench. Above 155 and below 154. Filled by 156-163. Cuts 155.

329 C(E) **Trench/pit**, 0.33m deep in section. Curving sides. Above 155 and below 154. Filled by 164. Cuts 327.

330 C(W) **Threshold stone**. Dressed granite, 0.6m wide and 0.33m high. Cast-iron stop fitted on top; gate opens to S. Above 331 and possibly cuts 155. Butted by 152-154, 165 and 166.

331 C(W) **Foundation wall,** supporting threshold stone 330. Granite stones; c1.35m wide and 0.4m high (min).

332 C(W) **Cut**, 0.46m deep and 1.6m wide in section. Angled N side (*c*60°), and fairly flat bottom. Above rab and below 154. Filled by 167. Cuts rab and is cut by 333. Possibly the same as 327 and 334.

333 C(W) **Pit/trench**, 0.86m deep and 1.45m wide. Sloping bottom and steep-sided (*c*70°) Below 154 and 172. Filled by 168-171. Cuts 167, 173, 332 and 334, and rab.

334 C(W) **Cut**, 0.42m deep in section/ Gently sloping S side (*c*35°). Below 154 and 172. Filled by 173. Cuts rab and cut by 333.

335 A **Cut/ house platform**, 0.58m deep (max) and 8.4m wide, in section. Roughly levelled area with gently sloping sides (*c*20°). Bottom flat but with a shallow step roughly in centre. Possibly a house

platform; contains prehistoric pottery and saddle quern. Filled by 235 and 236. Cuts 234.

335A B **Pit/trench**, 0.65m deep and 2.4m wide in section. Flat-bottomed, sides *c*45° in W side of trench but much more irregular in E side. Above rab and below 1. Filled by 224 and 225. Cuts rab.

336 B(E) **Layer or lens** of burnt soil, 0.04m deep. Reddened and with some charcoal, on top of 8.

337 B **Trench**, 0.5m deep in section. Steep sides (*c*60°), flat bottomed, but with some uneven-ness. Below 1 and filled by 217-219. Cuts rab.

338 B **Grave**, 0.25m deep and 0.36m wide. Round-bottomed cut with steep sides (*c*80°). Length of body from top of skull to top of femurs is 0.71m. Skull towards S side of grave; not carefully placed; and not in a coffin. Below 212, and filled by 215. Cuts rab and cut by 230.

339 B(W) **Pit**, 0.24m deep in section. Uneven base and gentle sides (*c*15°). Below 212 and filled by 213, 214 and 216.

340 B(W) **Trench/pit**, 0.5m deep in section. Fairly flat-bottomed trench/pit with fairly steep sides (*c*80°). Above rab and below 1, 2, and 6. Filled by 4 and 5. Cuts rab.

341 B(W) **Cut/trench**, 0.4m deep in section. Gently sloping sides (*c*45°), with a slight curve. Flat bottom. Above 10, 12 and 13. Below 1 and filled by 11. Cuts 342-344. Butts 15.

342 B(W) **Cut/pit**, 0.38m deep and 1.5m wide in section. Above 10, 13 and rab and below 11. Filled by 12. Cuts 343 and 344, and is cut by 341.

343 B(W) **Cut/trench**, 0.56m deep in section. Below 11 and 14. Cuts rab and is cut by 341 and 342. Butts 15.

344 B(W) **Cut**, 0.6m deep in section. Angled cut, *c*50° at S end. N end cut into. Fairly flat bottom/ Filled by 10. Cuts 2, 8 and rab. Cut by 341 and 342.

345 B(W) **Cut/ditch**, 0.2m deep and 0.9m wide in section. Beneath or beside wall; possibly the source of earth for fill. Gently sloping sides (*c*30°), rounded bottom. Below 15, and 19. Filled by 17. Cuts rab.

346 B **Cut**, 0.4m deep and 2.5m wide in section. Gentle cut to N (*c*30°). Butts wall 15 to S. Above 19 and 20 and below 1. Filled by 18. Cuts 21 and butts 15 and 16.

347 B(W) **Cut**, 0.2m deep and 0.64m wide in section. Below 18; filled by 20 and cuts 19.

348 B(W) **Cut**, 0.6m deep in section. Below 1; filled by 26; cuts 21, 27 and 28.

349 B(W) **Pit/trench**, 0.45m deep (min) and 3.38m wide in section. Steep-sided (*c*80°). Probably open at same time as 350. Filled from S with tippings. Below 19, 21 and 37. Filled by 22-25, and 37. Cuts rab. Possibly the same as 350.

350 B(W) **Cut** with irregular bottom and lots of tippings. Filled by 27-30 and 37. Possibly the same as 349.

351 B(E) **Cut/trench**, 0.74m deep. Steeply sloping cut (*c*70°) with wall 15 at its base. Above rab and below 1. Filled by 33. Cuts 18 and 19.

352 B(E) **Cut/pit**, 0.6m deep (min), and 0.8m wide in section. Steep (85°) S side and gentler (75°) N side. Not fully excavated, but appears to be a pit from plan. Below 24 and filled by 24, 35 and 42. Cuts rab and 23.

353 B(E) **Cut/pit/trench**, 0.4m deep (min) and 0.85m wide in section. Undercut to N by *c*45°. Side *c*70° to S. Not bottomed. Below 37; filled by 40 and 41. Cuts rab.

354 B(E) **Cut**, 0.3m deep and 0.95m wide in section. Steep curving sides (*c*80°); flattish bottom. Below 1 and filled by 36. Cuts 21, 26 and 357.

356 B(E) **Cut**, 0.4m deep and 3.5m wide in section. Uneven bottom and gentle S side (*c*25°). Above 352 and 353. Below 19, 21, 26 and 39. Cuts 24, 40 and rab. Cut by 357 and 358.

358 B(E) **Cut/pit**, 0.3m deep and 0.75m wide in section. Steep sides (*c*70°) and uneven bottom. Below 1 and cuts 26 and 357.

359 B(E) **Cut**, 0.78m deep and 4.9m wide in section. Above 361. Cuts 1, 26, 39, 44 and possibly 361. Cut by 360.

360 **B(E)** **Cut,** 0.25m deep and 6.8m wide in section. Above 43, 45, 49 and 52. Below 48 and filled by 47. Cuts 359 and is cut by 363.

361 **B** **Cut,** 1.0m deep and 3.1m wide in section. Uneven sides and bottom, *c*35° to S and *c*60° to N. Slighter on W side of trench than E; 0.52m deep and 1.6m wide) Above rab, 44 and 51. Below 43, 47, 359 and 360. Filled by 45 and 46. Cuts 44 and 51, and cut by 362.

362 **B** **Cut,** 0.6m deep and 4.6m wide in section. Medium steep S side (45°) and more gentle to N (*c*15°). Visible in west side of trench too, but slighter. Below 47 and 52 and filled by 49 and 50. Cuts 45 and 51. Cut by 360 and 364.

363 **B** **Cut,** 0.14m deep and 2.5m wide in section. Gentle-sided, *c*30°, and flat bottomed. Also visible on W side of trench, but only 0.7m wide. Above 47, 51; below 53. Cuts 47 and 51.

364 **B(E)** **Cut,** 0.15m deep and 0.6m wide. Gentle sides (*c*20°), rounded bottom. Above 51 and below 47. Filled by 52. Cuts 49, 51 and 362.

365 **B(E)** **Cut,** 0.2m deep and 1.2m wide. Gentle sided (*c*20°) and round-bottomed. Below 53 and cuts 51. Cut by 366.

366 **B(E)** **Cut,** 0.12m deep and 1.3m wide in section. Gentle-sided (*c*10°) and round-bottomed. Below 53. Cuts 51, 55, 58 and 59.

367 **B(E)** **Cut,** 0.2m deep and 0.5m wide in section. Fairly sharply cut (*c*35°). V-bottom. Below 57 and filled by 59. Cuts 58 and 60.

368 **B(E)** **Cut,** 0.26m deep and 1.6m wide. Gentle-sided (*c*8°) and round bottomed. Above rab and below 53 and 62. Cuts rab and is cut by 369.

369 **B(E)** **Cut/pit,** 0.22m deep and 0.6m wide. Not on W side of trench. Sides to *c*80°; round-bottomed. Below 53 and cuts 61.

370 **B** **Pit/trench,** 0.6m deep and 1.1m wide. Steep-sided (*c*70°); flat-bottomed. Visible on W side too (1.2m wide). Iron pan at bottom. Below 48; filled by 63. Cuts 53, 64, 68 and rab.

371 **B** **Cut/trench,** 0.42m deep and 1.5m wide in section. Steep-sided to S (85°), gentle to N (20°). Visible on W side (0.76m deep and 1.8m wide). One large stone removed from W side. Above 68 and rab. below 64. Cuts 68 and rab.

372 **B** **Trench/pit,** 0.42m deep and 2.2m wide. Fairly steep sided (*c*60°) and fairly flat-bottomed. Crosses trench diagonally (ie 0.5m further south on W side). Above 67 and rab and below 64. Filled by 66. Cuts 67 and rab.

373 **B(E)** **Cut,** 0.28m deep and 0.7m wide in section. Rounded cut (*c*35°). Below 69. Filled by 70. Cuts rab and is cut by 374.

374 **B(E)** **Cut,** 0.26m deep. Rounded cut (*c*40°). Above 70 and rab. Below 48 and 69. Filled by 71.

375 **B(W)** **Cut,** 0.34m deep. Steps down to cut 377, with essentially same fill (74). One main phase, two episodes? Steep cut (*c*85°) and flat bottom. Filled by 74 and 75. Cuts 67, 72 and rab. Cut by 376.

376 **B(W)** **Cut,** 0.26m deep and 1.4m wide. Rounded sides (to *c*60°), and rounded bottom. below 48 and cuts 74.

377 **B(W)** **Cut,** 0.26m deep and 1.4m wide. Stepped down from cut 375, with same fill. Filled by 74. Cuts 67 and rab and possibly cut by 76.

378 **B(W)** **Possible cut,** 0.48m deep and 6.4m wide in section. Irregular sides and bottom. On east side of trench too, but starts 2.55m further N. Below 79 and filled by 77. Cuts rab and is possibly cut by 379.

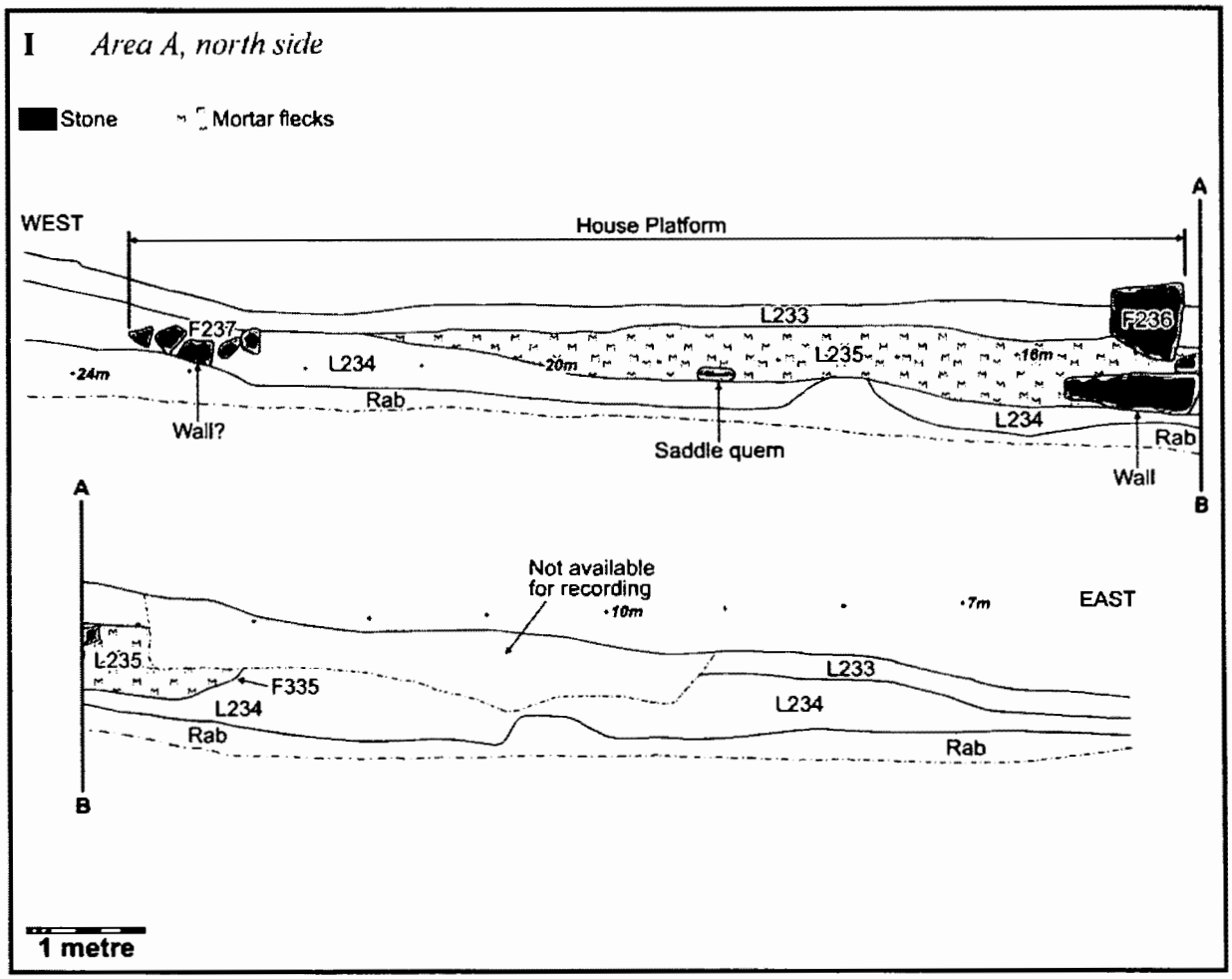
379 **B(W)** **Cut/trench.** Slightly irregular, gently sloping (*c*45°) sides. Uneven bottom, rising in centre. Below 48 and filled by 78. Cuts 77 and rab.

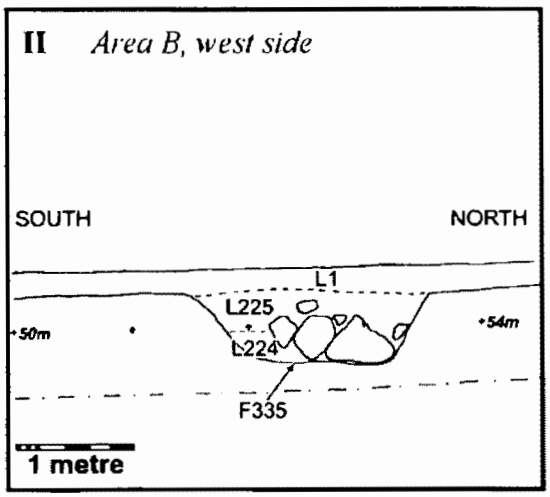
380 **B(W)** **Cut/pit,** 0.18m deep and0.36m wide in section. Steep sides (*c*70°), and flat bottom. Above 77 and below 79. Cuts 77.

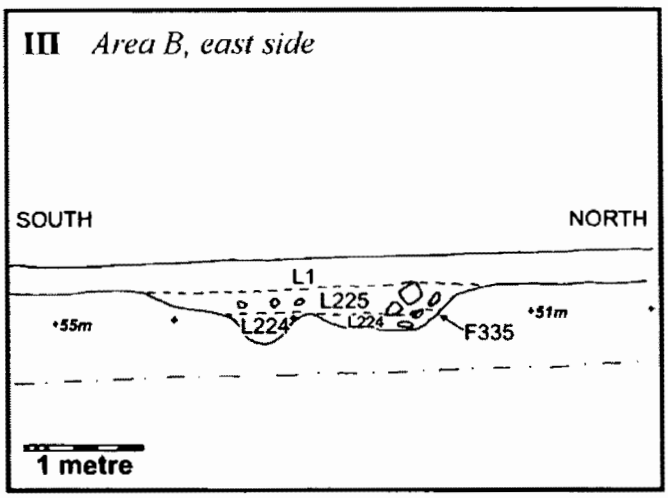
381 **B(W)** **Cut/trench,** 0.34m deep and 3.1m wide in section. Angled S side (*c*40°) and more gentle N side (*c*25°). Above 81 and below 79. Cuts 81.

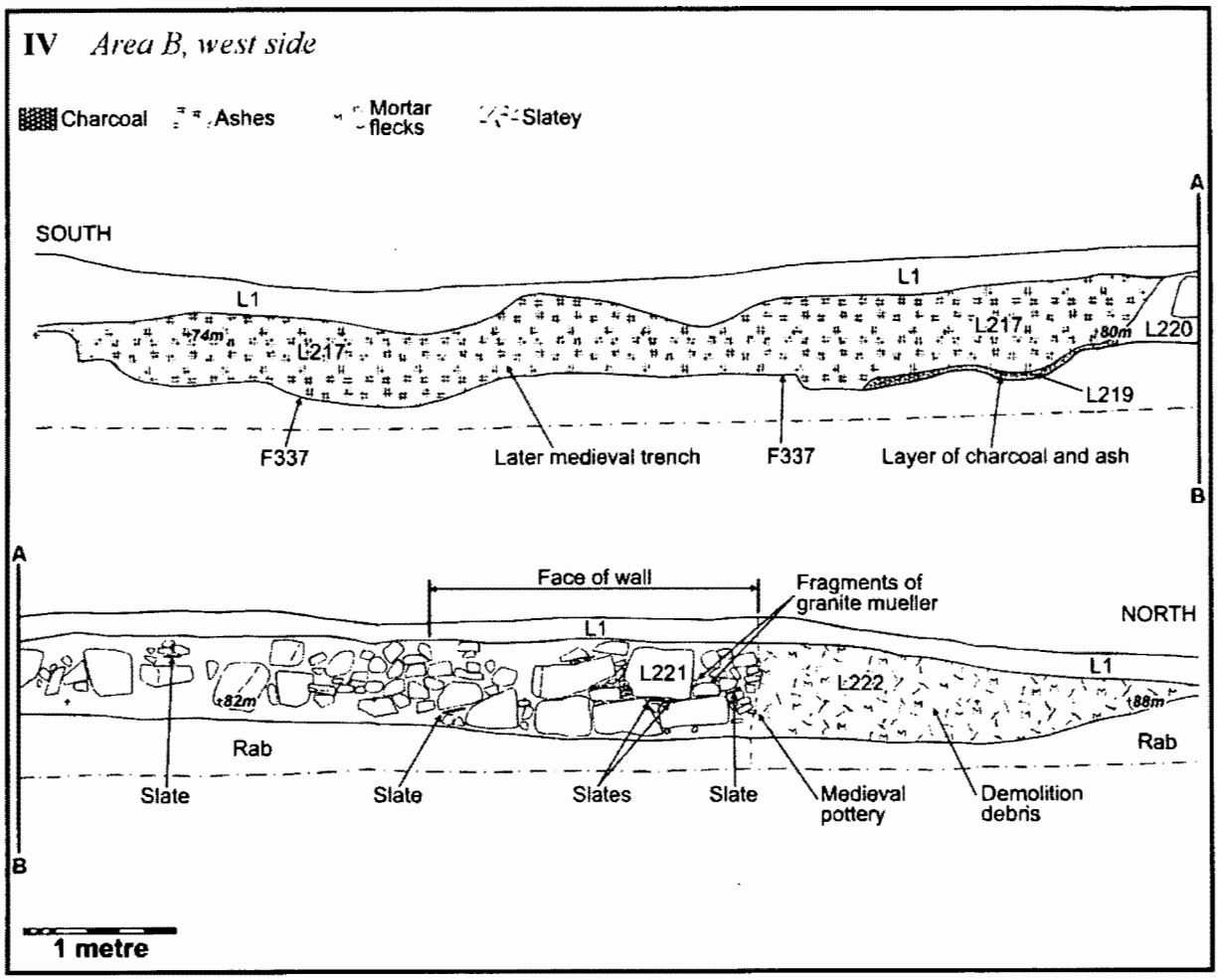
382 **B(W)** **Possible cut,** 0.45m deep and 9.5m wide in section. Fairly level bottom; angled S end (*c*50°).

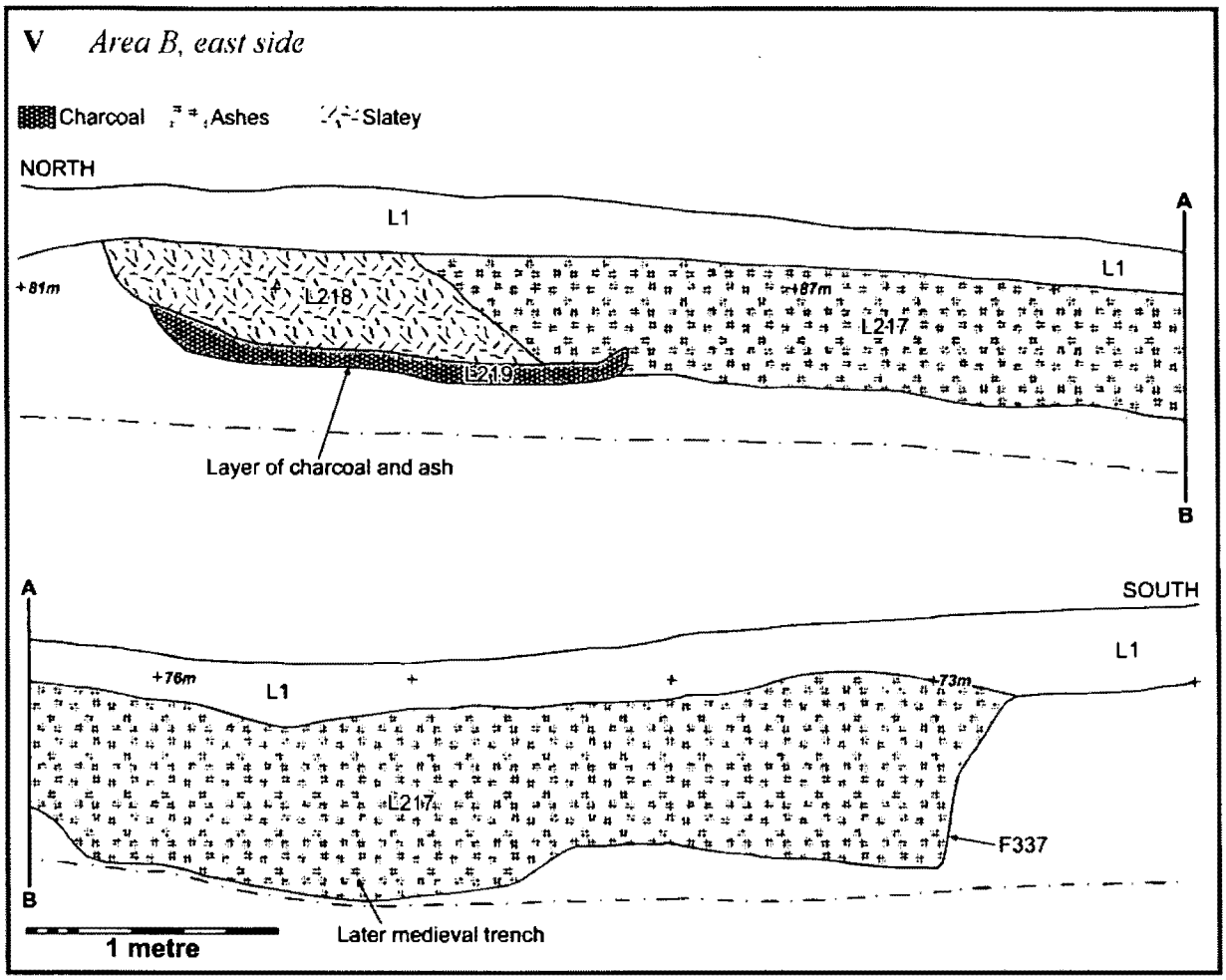
Below 48, 79, 82, 83, and 83A. Cuts rab and is cut by 381.



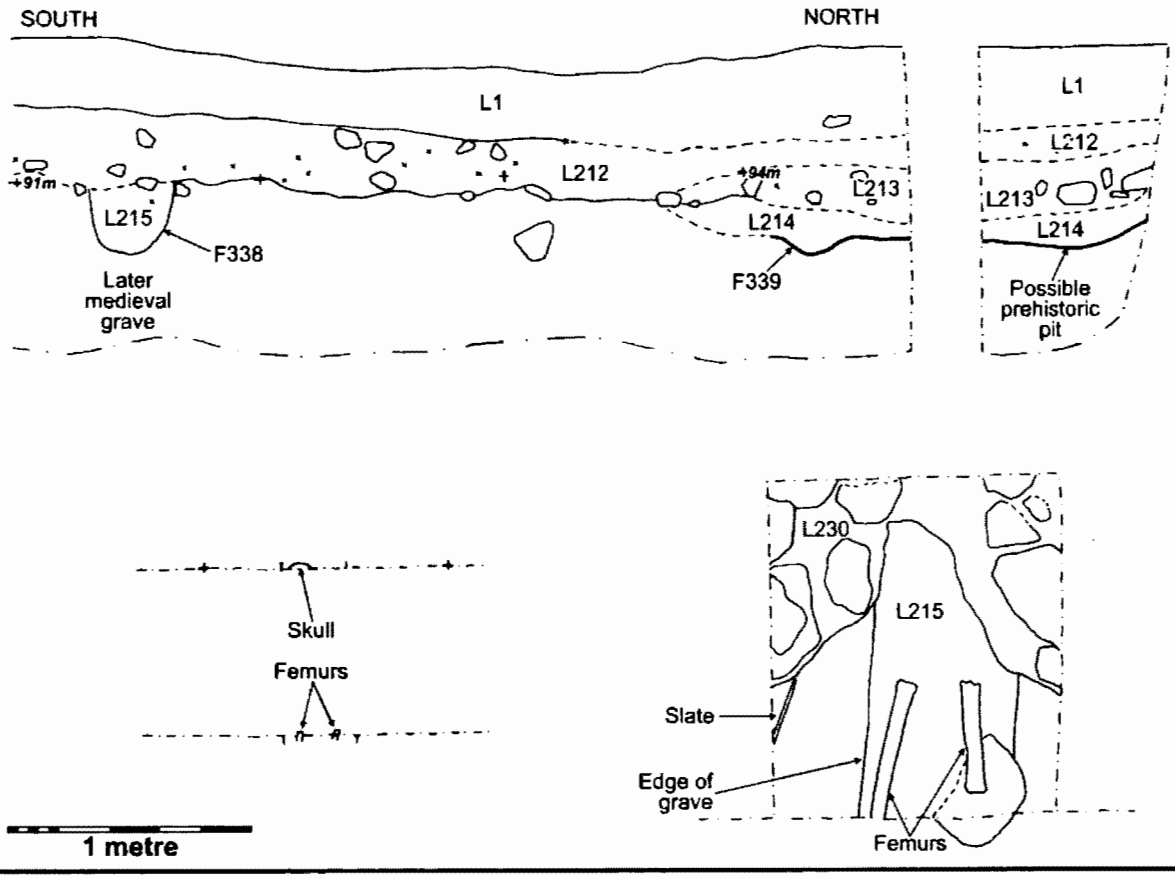




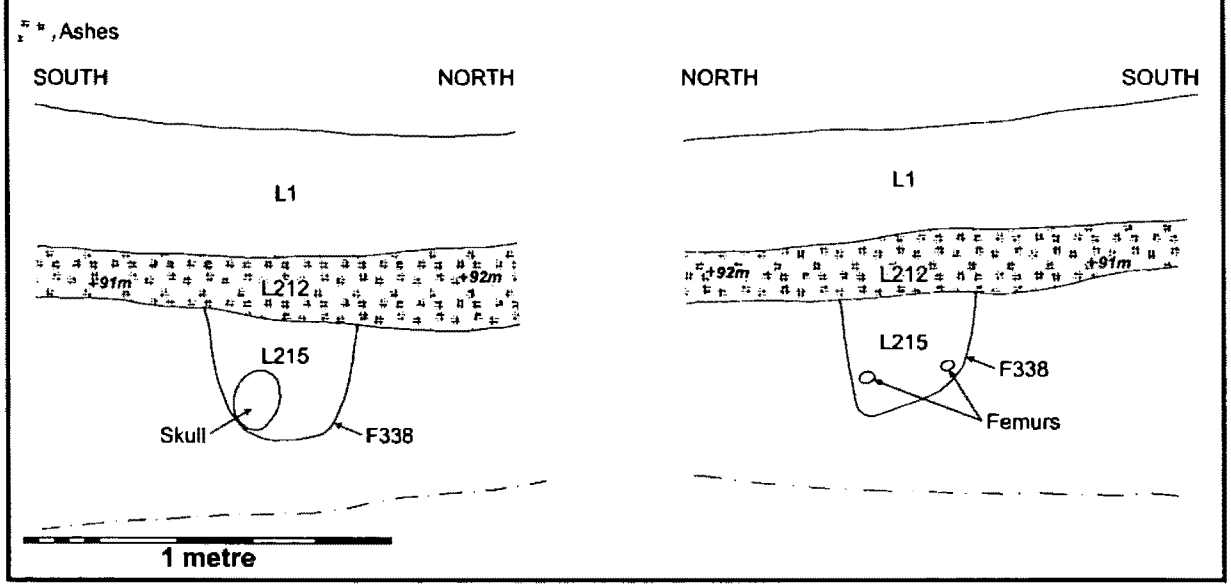

IV Area B, west side
Charcoal
Ashes
Mortar flecks
Slatey
SOUTH
A
L1
L1
L217
L217
74m
80m
L220
L219
F337
Later medieval trench
F337
Layer of charcoal and ash
B
A
Face of wall
Fragments of granite mueller
NORTH
L1
L1
L221
L222
82m
88m
Rab
Rab
Slate
Slate
Slates
Slate
Medieval pottery
Demolition debris
B
1 metre


V Area B, east side
Charcoal
Ashes
Slatey
NORTH
L1
A
L1
+81m
L218
+87m
L217
L219
Layer of charcoal and ash
B
A
SOUTH
L1
+76m
L1
+73m
L217
F337
B
1 metre
Later medieval trench

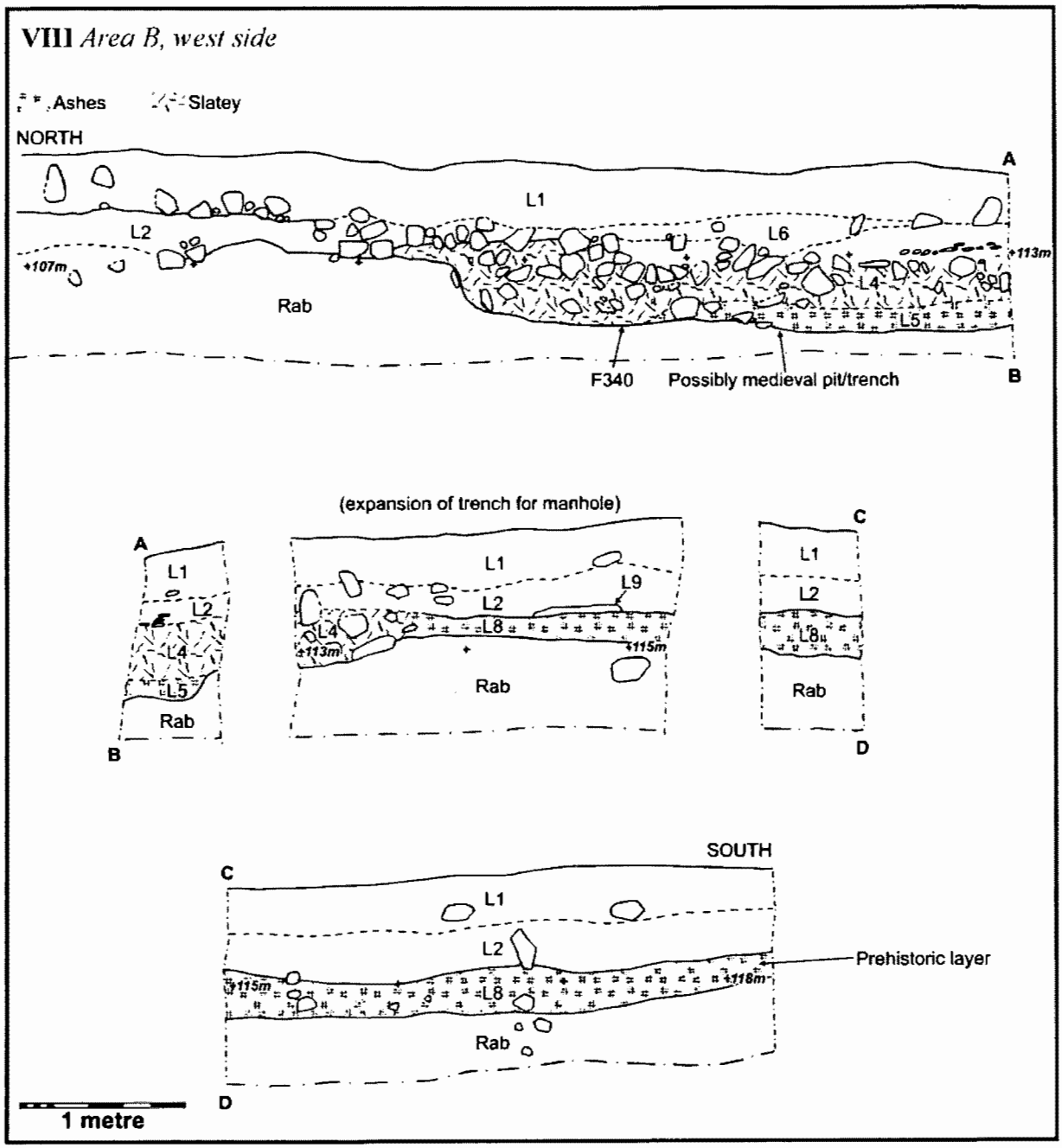
VI *Area B*


SOUTH
NORTH
L1
L212
+91m
L215
F338
Later medieval grave
+94m
L213
L214
F339
L1
L212
L213
L214
Possible prehistoric pit
Skull
Femurs
L230
L215
Slate
Edge of grave
Femurs
1 metre

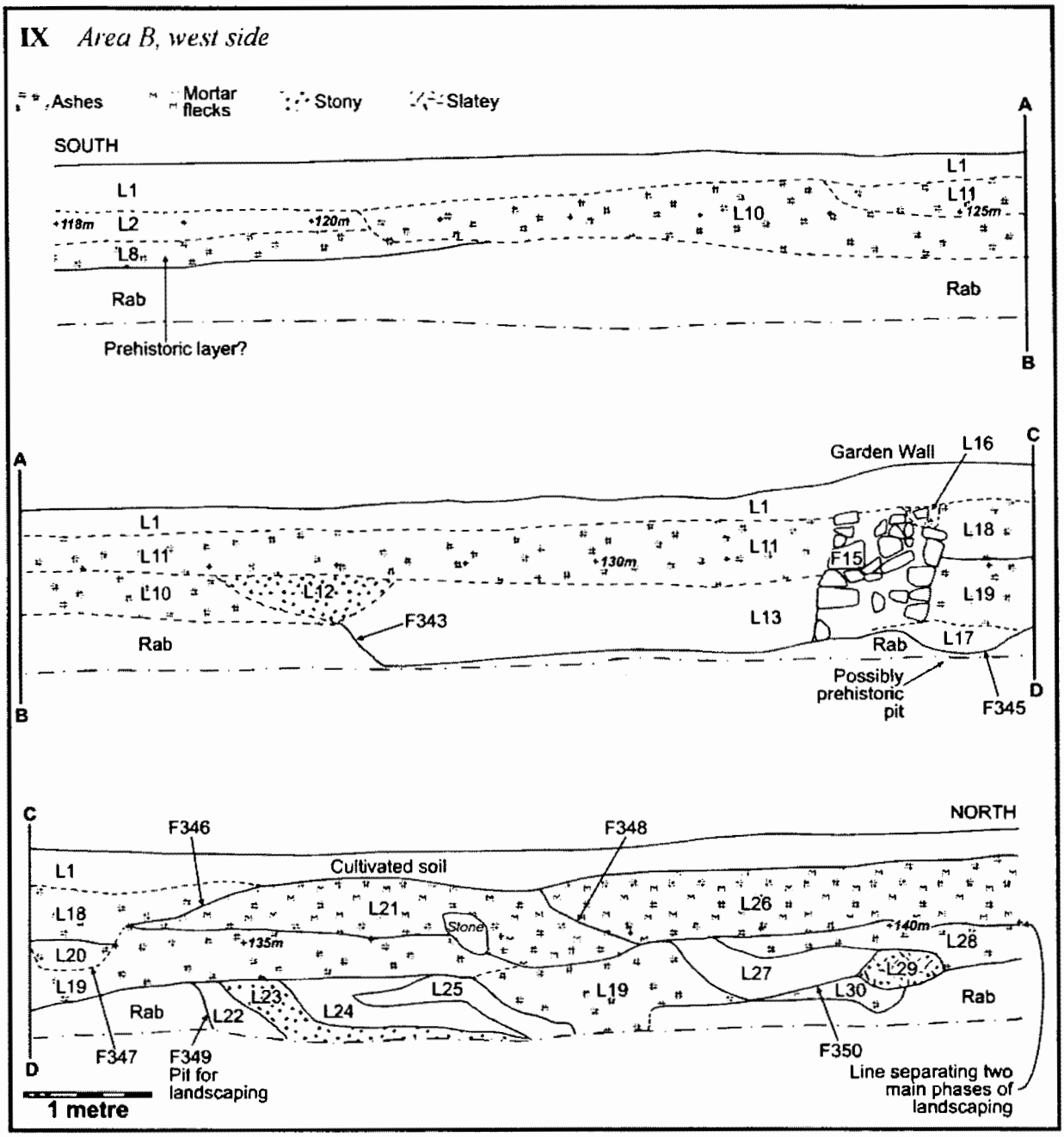
VII *Area B, Medieval Grave*



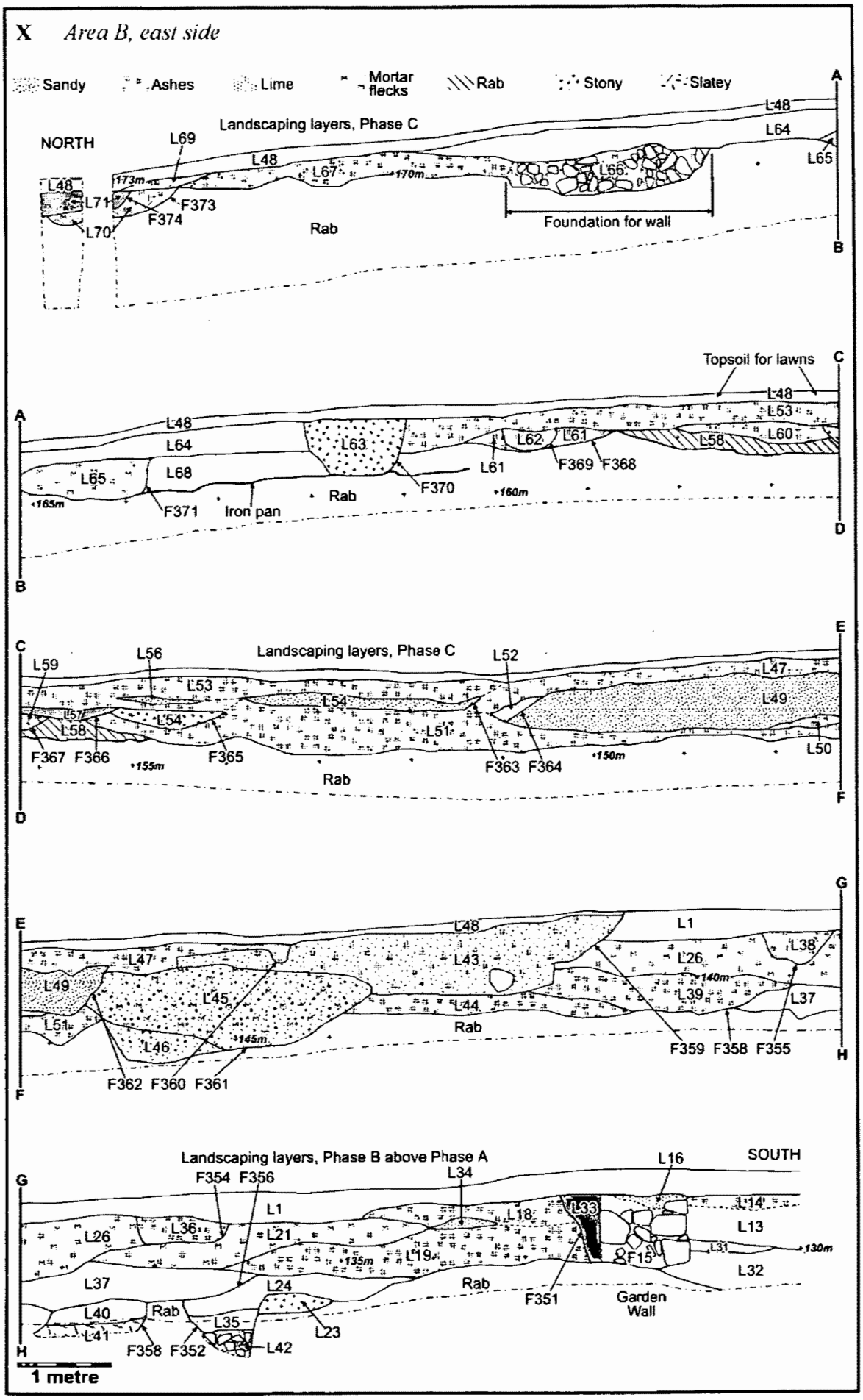
VIII *Area B, west side*

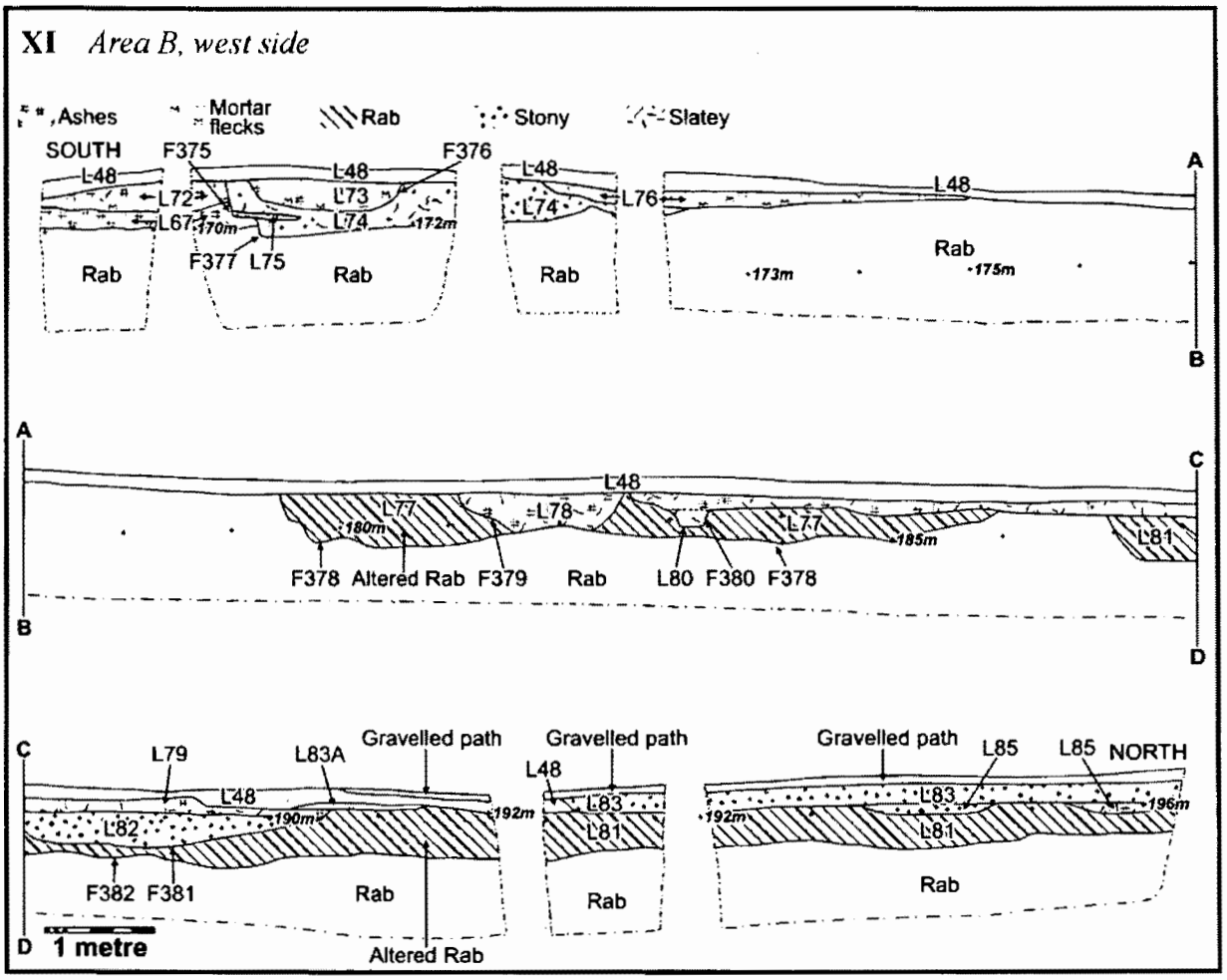


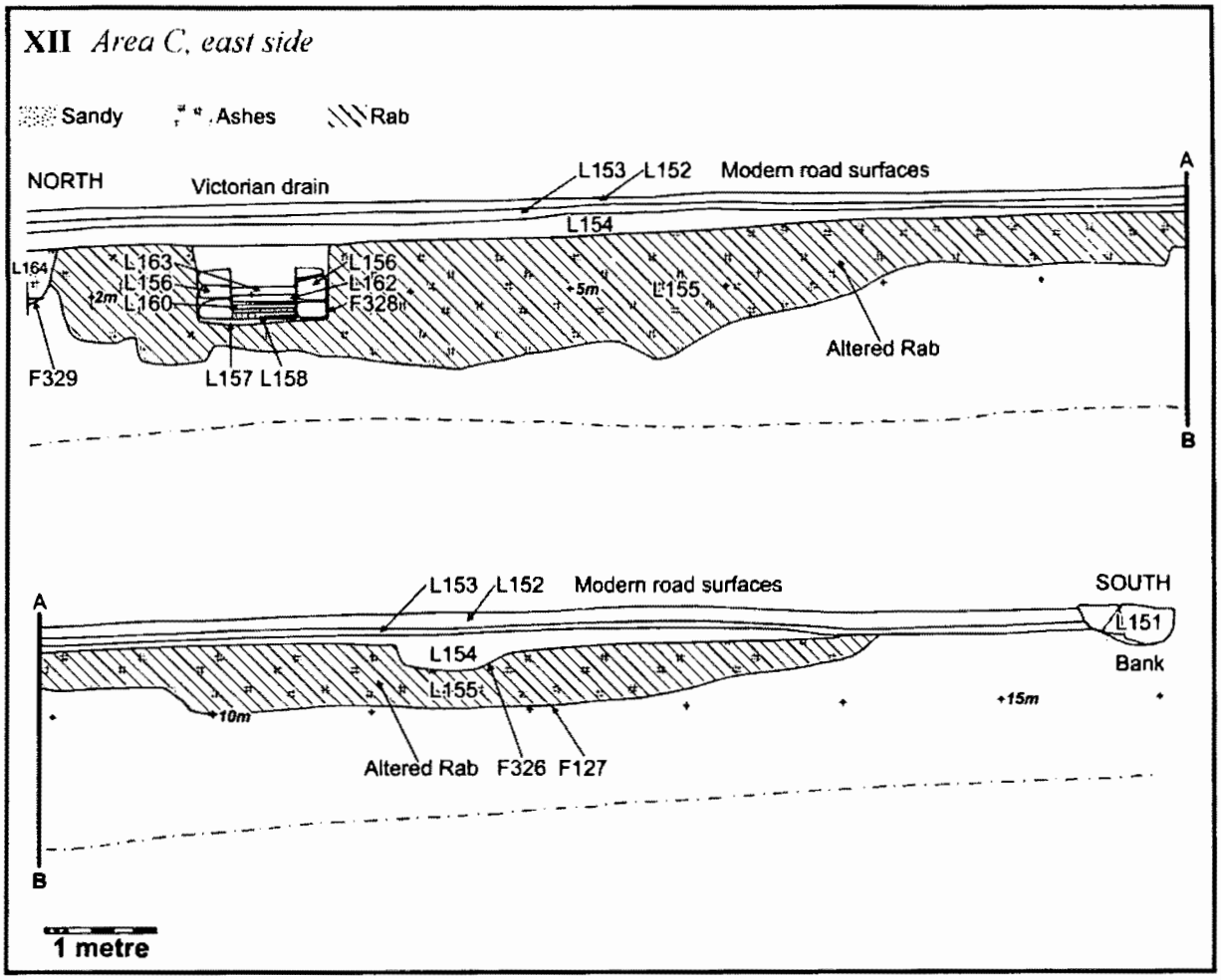
IX *Area B, west side*



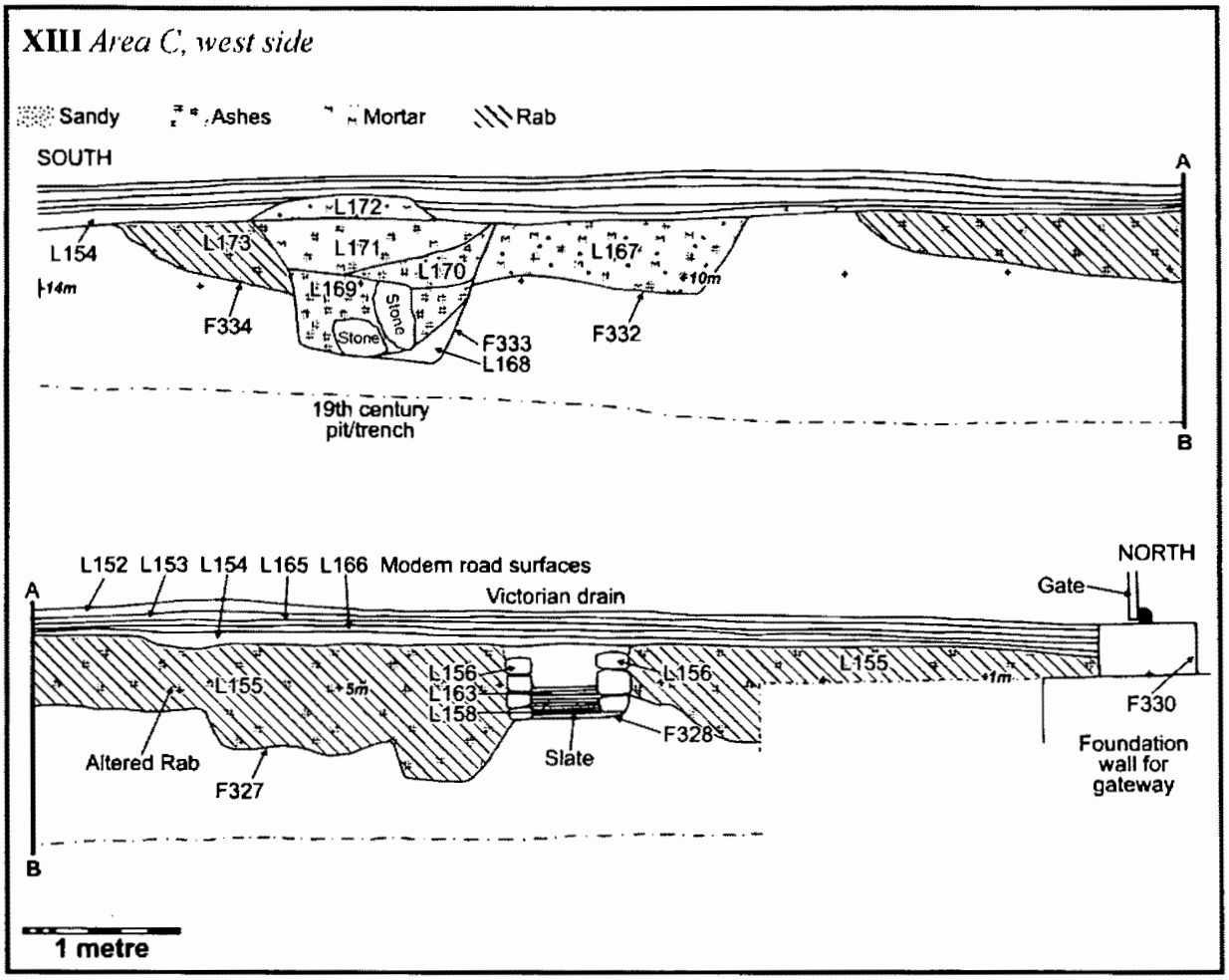
X *Area B, east side*



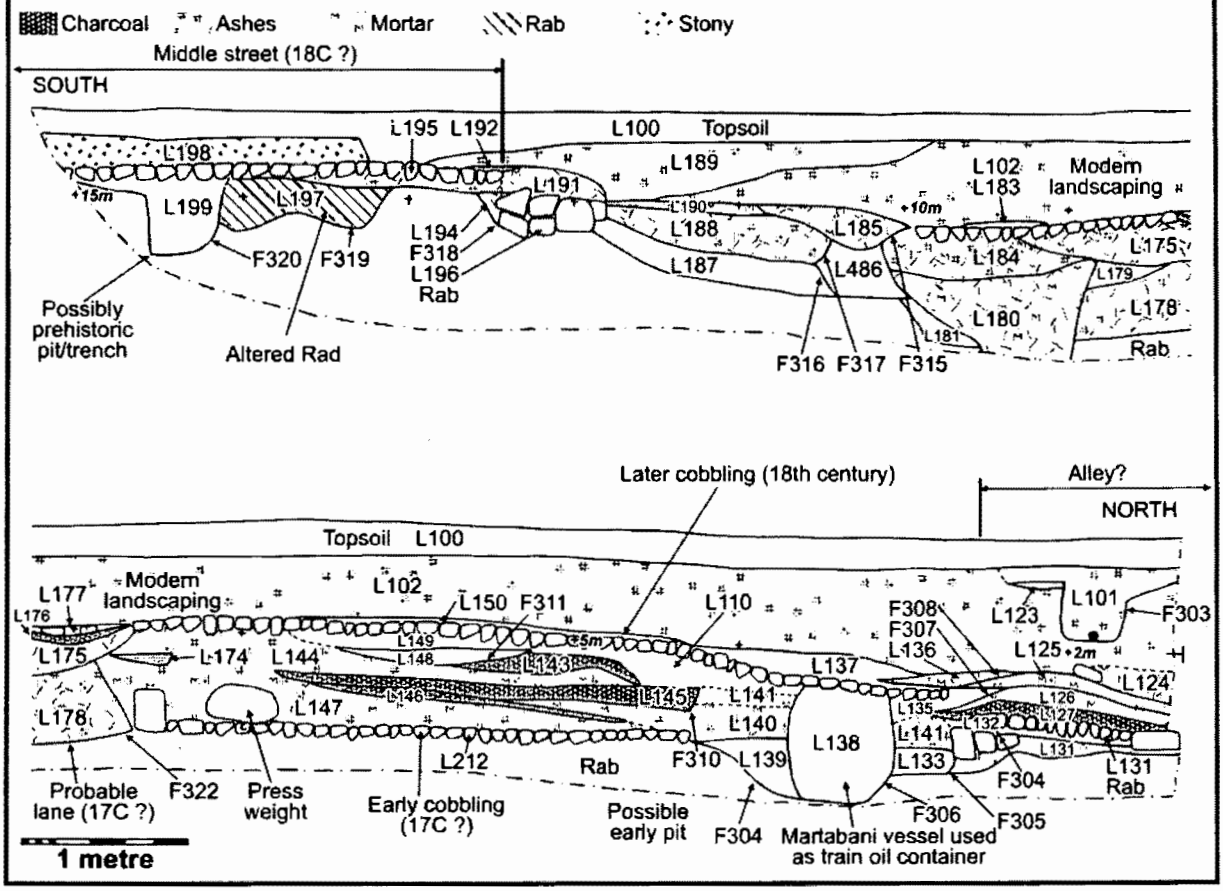

XI Area B, west side
Ashes
Mortar flecks
Rab
Stony
Slatey
SOUTH
F375
F376
L48
L72
L67
L73
L74
L76
170m
172m
F377
L75
Rab
173m
175m
A
B
L77
L78
L81
180m
185m
F378
Altered Rab
F379
L80
F380
C
D
L79
L83A
L82
L83
190m
192m
196m
F382
F381
Gravelled path
L85
NORTH
1 metre


XII Area C, east side
Sandy
Ashes
Rab
NORTH
Victorian drain
L153 L152 Modern road surfaces
A
L154
L164
L163
L156
+2m
L160
L156
L162
F328
+5m
L155
Altered Rab
F329
L157 L158
B
L153 L152 Modern road surfaces
SOUTH
A
L151
Bank
L154
L155
+10m
+15m
Altered Rab F326 F127
B
1 metre

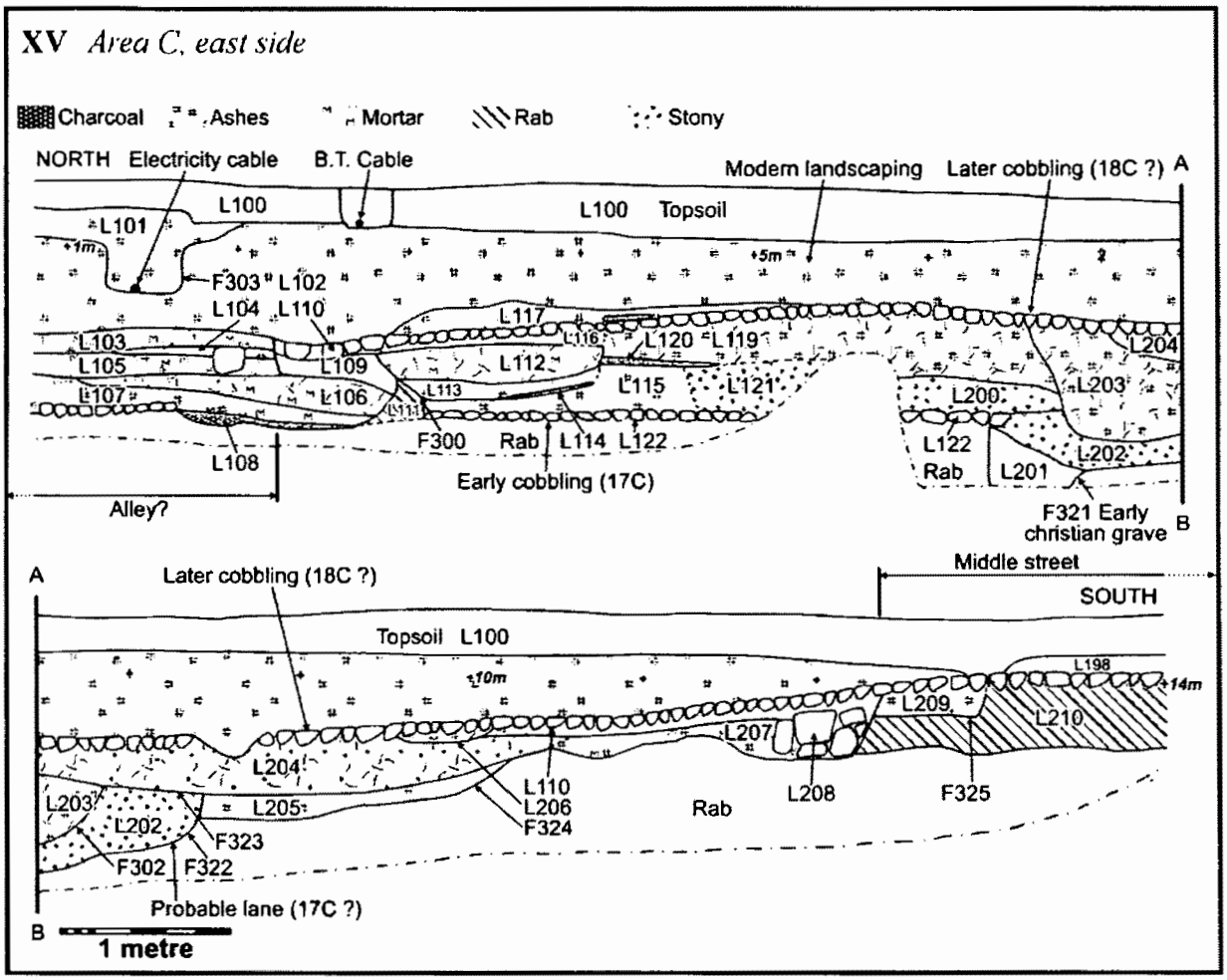
XIII *Area C, west side*



XIV *Area C, west side*



XV *Area C, east side*



APPENDIX 2 LIST OF FINDS FROM SEWER WATCHING BRIEF

By Carl Thorpe, with addenda and comments from John Allan, Peter Herring, Steve Hartgroves and Anna Lawson Jones.

The total numbers of particular forms and dates of finds from each context are summarised in the following table. Contexts are those recorded in the trench sections (see Appendix 1).

Carl Thorpe's initial text is in normal font. Addenda and comments from John Allan, Curator of Antiquities at The Royal Albert Museum, Exeter, author of the standard text on medieval and post-medieval finds in Exeter (Allan 1984), and recognised authority on post-prehistoric ceramics in the South-West, are in square brackets, prefixed with JA and in italics. These were added by Peter Herring from notes taken in discussion with John and Carl while inspecting all the finds. Comments on the flint artefacts made by Peter Herring, Anna Lawson Jones and Steven Hartgroves of CAU are prefixed ALJ/SH, and are again in square brackets and italics.

Context [1] *Cultivated topsoil in Area B extending northwards 186m from the pillbox*
(The slash numbers under context 1 refer to the distance north along trench B from the pillbox)

1/40	1 basal sherd, Cornish medieval Coarseware.	13th to 14th C
[JA: Cornish coarseware.		*16th or 17th C]*
1/61	1 primary cortical flint waste flake.	Prehistoric
[ALJ/SH: From a later prehistoric core]		
1/64	2 sherds Cornish Medieval Coarseware	13th to 14th C
[JA: Cornish hand-made, thin-walled coarse 'A' ware.		*1200-1500]*
1/67	1 sherd North Devon Post-medieval Glazed Red Earthenware.	17th to 18th C
[JA: Coarse sandy ware; possibly Somerset or Devon.		*1550-1650]*
-	2 sherds Cornish Medieval coarseware.	13th to 14th C
[JA: Cornish hand-made thin-walled coarse 'A' ware.		*1200-1500]*
-	1 sherd Cornish Medieval Coarseware. (St Germans Ware).	13th to 15th C
1/73	1 sherd terracotta roofing tile.	19th C
[JA: Pan tile.]		
1/74	1 flint waste cortical flake.	Prehistoric
1/78	1 cow tooth ?	
1/81	1 rimsherd Cornish Post-Medieval Coarseware. Flanged rim of bowl. (Lostwithiel Ware)	16th C
-	1 shard of green window glass.	Post-Medieval
[JA: Diamond-shaped quarry, with grozing.		*17th C]*
1/85	1 sherd Cornish late Medieval Coarseware.	15th to 16th C
[JA: Cornish plain coarseware.		*16th - 17th C]*
-	1 sherd Cornish Medieval Coarseware.	13th to 14th C
[JA: North Devon medieval coarseware, chert tempered.		*Medieval]*
-	1 rimsherd Devon Post-Medieval, Gravel Tempered GRE.	17th to 18th C
[JA: Basal rimsherd of a chafing dish; sooted. North Devon gravel-tempered ware.] **Fig 14**		*Late16th-18th C*
-	1 basal sherd Modern Saltglazed Stoneware. Inkwell.	19th C
[JA: Bristol stoneware inkpot.		*post-1830]*
-	1 sherd Modern White Glazed Stoneware.	19th C
[JA: Creamware]		
-	1 shard hand blown green bottle glass.	18th C
[JA: English green bottle glass.		*18th C]*
-	1 perforated Delabole roofing slate fragment.	?
-	16 mortar fragments.	?
-	2 charcoal fragments.	?
1/86	1 sherd Cornish Medieval Coarseware.	13th to 15th C
[JA: Cornish wheel-thrown coarse 'B' ware.		*1400-1550]*
1/87	1 rimsherd of Cornish Medieval Coarseware. Large cooking vessel [O'Mahoney 1989a fig 2]	13th to 14th C

	Bunnings park / Stuffle Ware. **Fig 13**	
[JA: Probably post-medieval, local Cornish		*post-1500]*
1/88	2 sherds Cornish Medieval Coarseware.	13th to 15th C
[JA: Medieval Cornish hand-made thin unglazed.		*1200-1500]*
-	2 sherds Post-Medieval GRE Decorated Slipware.	17th to 18th C
[JA: South Somerset sgraffito dish; possibly Donyatt ware.		*Mid-late 17th C]*
1/89	1 sherd Cornish Medieval Coarseware.	13th to 15th C
[JA: Cornish coarseware.		*post-1500]*
-	5 animal bone fragments.	?
1/90	1 sherd Cornish Medieval Coarseware.	13th to 15th C
[JA: Cornish coarse handmade thin-walled 'A' ware.		*1200-1500]*
-	1 sherd Cornish Late Medieval Coarseware. (Lostwithiel Ware)	15th to 16th C
[JA: Cornish coarse wheel-thrown 'B' ware.		*1400-1550]*
-	1 sherd Post-Medieval GRE.	17th to 18th C
[JA: Either Donyatt or North German Werra slipware.]		
-	1 iron fragment.	?
1/91	4 sherds (1 basal) Cornish Medieval Coarseware.	13th to 14th C
[JA: 2 sherds of Cornish medieval coarse 'B' ware.		*1400 - 1550*
	2 sherds of Cornish medieval coarse 'A' ware.	*1200-1500]*
-	2 sherds Post Medieval GRE.	17th to 18th C
[JA: 1 sherd of South Somerset ware; redder fabric.		*16th - 18th C*
	1 sherd of North Devon gravel-tempered ware.	*post-1500]*
	1 rimsherd Post Medieval GRE. (Donyatt Ware).	17th C
	White trail slip decorated dish.	
[JA: South Somerset dish with slip arcades.		*1600 - 1650]*
-	1 rimsherd terracotta flowerpot.	19th C
[JA: Plain red earthenware flowerpot.		*19th C]*
-	2 sherds Post-Medieval roofing tile.	18th to 19th C
[JA: Cornish ridge tile.		*Post-medieval]*
-	1 fragment clay pipe bowl.	18th C
-	3 animal bone fragments.	?
-	1 perforated Delabole roofing slate fragment.	?
-	1 flint burin / borer.	Neolithic / B A
1/93	1 sherd Gabbroic (Fabric C).	Prehist / Rom-Brit
-	1 sherd Cornish Medieval Coarseware.	13th to 15th C
[JA: Cornish medieval hand-made thin-walled coarse 'A' ware.		*1200-1500]*
-	1 sherd Medieval GRE.	13th to 16th C
[JA: North Devon gravel-tempered ware.		*post-1500]*
1/94	1 sherd Granitic Derived (Fabric A).	LBA/EIA
-	8 sherds Cornish Medieval Coarseware.	13th to 15th C
	(Bunnings Park / Stuffle Ware)	
[JA: All from one vessel of Cornish coarse 'B' ware.		*1400-1550]*
-	1 fragment hand made fired clay brick.	?
[JA: Floor tile of an oven; sooted; late medieval		*14th or 15th C]*
-	3 clay pipe fragments.	18th to 19th C
[JA: One has a strange heel.		*17th C]*
-	2 waste flint cortical flakes.	Prehistoric
[ALJ/SH: One flint possibly has a tiny area of retouch]		
-	1 water rounded white quartz pebble.	?
1/98	2 sherds Cornish Medieval Coarseware.	13th to 15th C
	Stab decorated handle (Bunnings Park / Stuffle Ware)	
	[Allan, J.P 1984 fig 28, 818] **Fig 13**	
[JA: Twisted rope handle of a jug with slash marks; Cornish?		*c1470-1570]*
1/104	1 rimsherd Cornish Post-Medieval Cornish Coarseware.	16th C
	Jug	
[JA: Possibly North Devon gravel-tempered ware?]		
-	1 waste flint flake.	Prehistoric
1/112	2 sherds North Devon Post Medieval GRE.	17th to 18th C
[JA: North Devon gravel-tempered ware. Closed form.		*Post-1500]*
1/123	1 flint blade with broken tip, retouched **(Fig 11)**	Neolithic / B A
[JA: Mesolithic?]		
1/127	1 sherd North Devon Post-Medieval,	18th to 19th C
	Gravel Tempered Coarseware. GRE.	

[JA: Cornish micaceous coarseware]
- 1 sherd terracotta roof tile fragment. 19th C
[JA: Pan tile]
- 1 brick fragment. 19th C
[JA: 19th C]
1/131 1 sherd North Devon Post-Medieval, 18th to 19th C
Gravel Tempered Coarseware. GRE.
1/132 1 rimsherd Modern White Glazed Stoneware. 19th C
Transfer decorated.
[JA: Red transfer print. 19th C]
- 1 flint pebble core. Prehistoric
1/134 1 rimsherd Modern White Glazed Stoneware. 19th C
[JA: English grey stoneware, white engobe. 1700 - 1730]
- 2 sherds Modern White Glazed Stoneware. 19th C
Transfer decorated.
[JA: Creamware.]
- 1 sherd Modern Salt glazed Stoneware. 19th C
[JA: Transfer printed white earthenware. c1780]
- 1 clay pipe stem fragment. 19th C
- 1 flint side scraper with retouch **(Fig 11)** Neolithic / B A
[JA: Retouch post-dates patina; two phases of use.]
[ALJ/SH: First a discoidal knife, then reused as a side-scraper]
1/137 1 sherd Cornish Late Medieval Coarseware (Lostwithiel Ware).
15th C
- 1 sherd Cornish Late Medieval Coarseware (St Germans Ware). 15th C
- 1 rimsherd, Cornish Post-Medieval Coarseware. 17th C
flanged rim and pouring spout. (Lostwithiel Ware).
[JA: Cornish 'B' ware, wheel-thrown; deep vessel; possibly a plant pot? 17th or 18th C]
- 2 sherds Post-Medieval GRE. 16th to 18th C
[JA: South Somerset, Donyatt ware; slip and copper green glaze 18th C]
- 2 sherds Modern White Glazed Stoneware. 19th C
Transfer decorated
[JA: White transfer-printed earthenware post - 1780]
- 1 fragment clay pipe stem. 19th C
[JA: 17th C]
- 1 fragment of green bottle glass. 19th C
[JA: English green bottle glass; 'onion bottle' form. 1660s?]
1/140 1 sherd Cornish Post-Medieval Coarseware (Lostwithiel Ware). 17th C
[JA: Cornish plain ware. 16th - 17th C]
- 1 sherd Modern White Glazed Stoneware. 19th C
[JA: Staffordshire yellow earthenware. 16th - 17th C]
1/144 1 sherd Cornish Medieval Coarseware. 13th to 14th C
(Bunnings Park / Stuffle Ware)
[JA: North Devon gravel-tempered ware. post-1500]
2 sherds Modern White Glazed Stoneware. Transfer decorated 19th C
[JA: English. 19th C]
- 1 basal sherd Modern Salt glazed Stoneware. 19th C
[JA: Bootblack jar. post-c1850]
- 2 sherds of Post Medieval Red Sandy Ware. 18th to 19th C
[JA: Pan tiles]
- 1 sherd North Devon Post-Medieval, 18th to 19th C
Gravel Tempered Coarseware. GRE.
- 1 rimsherd Post-Medieval GRE. 18th to 19th C
- 1 clay pipe stem fragment. 18th to 19th C
- 1 shard green bottle glass. 19th C
- 1 bird bone fragment. ?
- 1 iron fragment. ?
1/148 1 sherd Modern GRE. 19th C
[JA: North Devon gravel-tempered ware]
- 1 sherd White Glazed Earthen Ware. Transfer decorated. 19th C
[JA: English white transfer printed earthenware. post-1830]
- 1 rimsherd terracotta roofing tile. 19th C
[JA: Pan tile.]

1/149	1 clay pipe stem fragment.	18th to 19th C
1/154	1 rimsherd Modern Porcelain.	19th C
[JA: Pearlware.]		
1/157	1 rimsherd Post-Medieval GRE Decorated Slipware. **Fig 14**	18th to 19th C
[JA: North Holland slipware (as Hurst et al 1986, no.238).		*1620 - 1720]*
1/159	1 sherd terracotta flowerpot.	19th C
[JA: Cornish.		*17th or 18th C]*
-	1 fragment Delabole roofing slate.	?
1/160	1 sherd Cornish Late Medieval Coarseware (Lostwithiel Ware).	14th to 15th C
[JA: Cornish wheel-thrown coarseware, 'B' ware.		*1400-1550]*
-	1 rimsherd, Devon Late Medieval Gravel Tempered Ware.	14th to 16th C
[JA: Cornish coarseware.		*18th C]*
-	3 sherds Modern White Glazed Stoneware.	19th C
[JA: Transfer printed white china.		*post-1780*
	Creamware.]	
-	1 sherd Modern Salt glazed Stoneware. Ink bottle.	19th C
[JA: Bristol brown stoneware.		*post-1830]*
-	2 fragments clay pipe stem.	18th to 19th C
-	2 animal bone fragments.	?
-	2 shards Modern Glass.	19th C
[JA:	*One is English green bottle glass.*	*18th C*
	The other is later.	*19th C]*
1/163	1 shard Modern window glass.	19th C
1/168	1 copper alloy Bridle boss.	13th to 14th C
	Decorated with crown and fleur de lis.	
	Inscription around exterior.	
1/175	1 sherd Cornish Late Medieval Coarseware.	14th to 15th C
-	2 sherds Devon Post-Medieval GRE.	17th to 18th C
-	4 sherds Modern White Glazed Stoneware. Transfer decorated.	19th C
[JA: Shell-edged white china.		*Early 19th C]*
-	1 sherd Modern Yellow Glazed Stoneware.	19th C
-	1 sherd Modern Salt Glazed Stoneware.	19th C
[JA: English brown stoneware.		*Mid-late 19th C]*
-	1 clay pipe stem fragment.	18th to 19th C
-	2 mortar fragments.	?
[JA: wall plaster]		
-	2 iron fragments.	?
-	2 animal bone fragments.	?
-	2 fish bone fragments.	?
-	1 oyster shell.	?
-	1 cockle shell.	?
-	1 water rounded flint chip.	?
1/179	3 sherds Modern White Glazed Stoneware Transfer decorated.	19th C
[JA: Transfer printed white earthenware.		*post-c1780*
	Two sherd of white china]	
-	1 sherd Modern Brown Glazed Earthen Ware.	19th C
[JA: Bristol Staffordshire agate-ware.		*c1710 - 1750]*
-	2 clay pipe stem fragments.	18th to 19th C
-	1 shard Modern window glass.	20th C
-	1 shard green bottle glass.	20th C
-	1 hand forged iron nail.	?
1/182	1 polished quartzite pebble whetstone / hammerstone **(Fig 11)**	Neolithic ?
[JA: Medieval or post-medieval pounder; modified beach pebble;		*Med/post-med*
	re-used as a whetstone.]	
1/186	1 rimsherd.	
[JA: Modern flowerpot]		

Context [2] *Area B, sector undisturbed by 19th century landscaping.*

2 sherds Granitic Admixture (Fabric D), one with burnished exterior, one with carination	LBA/EIA
1 sherd Gabbroic (Fabric C).	Prehist/Roman
1 sherd Granitic Admixture (Fabric B), Early Medieval.	8th to 11th C
[JA: Rim sherd; grass-marked; dish or platter with internal flange.]	

1 red brick fragment.	18th to 19th C
1 water rounded pumice stone.	?
1 water rounded white quartz pebble.	?
1 clinker fragment.	?
2 quartz crystals.	?

Context [4] *Area B, fill of early (?) trench/pit*

4 sherds Gabbroic (Fabric C).	Prehist/Roman
2 sherds Gabbroic with added temper (Fabric D).	LBA/EIA
1 daub fragment.	?
1 burnt clay fragment.	?
[JA: Late-medieval oven tile	*14th or 15th C]*
1 fragment of a polished whetstone, possibly a re-used stone axe.	Neolithic?
[JA: Probably not used as a whetstone, being so well polished and not very abrasive. Agrees probably a prehistoric tool; an axe or adze?]	
2 perforated slate fragments.	?
3 small slate fragments.	?
7 water rounded white quartz pebbles.	?
1 water rounded granite pebble.	?
1 water rounded slate and quartz pebble.	?
1 broken water rounded quartzite pebble utilised as a whetstone (**Fig 11**)	Prehistoric ?

Context [5] *Area B, fill of early (?) trench/pit, below [4].*

1 bodysherd Grass Marked" Early Medieval Gabbroic pottery.	9th to 11th C
2 broken water rounded flint pebbles.	?
1 flint blade with retouch.	Neolithic / B A
1 iron nail.	?
[JA: Well finished thin pin; possibly prehistoric/Roman period?]	

Context [8] *Area B, layer, possibly related to prehistoric settlement, above rab*

1 waste flint cortical flake.	Prehistoric
2 unworked water rounded greenstone fragments.	?

Context [10] *Area B, fill of trench/pit [344]*

1 sherd Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware)	13th to 14th C
[JA: Cornish micaceous, late medieval, wheel-thrown 'B' ware	*1400-1550]*
10 sherds of Post Medieval GRE.	18th to 19th C
*[JA: North Devon gravel-tempered ware, including one bowl, **Fig 14.**]*	
1 rimsherd Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffordshire Ware).	
[JA: Bristol Staffordshire	*1720 - 1800]*
2 hand moulded brick fragments.	18th C
1 hand forged iron nail.	?

Context [11] *Area B, fill of trench or pit [341]*

2 rimsherds, North Devon, Post Medieval Gravel Tempered GRE.	18th to 19th C
4 sherds North Devon, Post Medieval Gravel Tempered GRE.	18th to 19th C
[JA:	*17th - 18th C]*
1 sherd Modern White Glazed Stoneware.	19th C
1 flint cortical flake with retouch.	Neolithic / B A
1 brick fragment.	19th C
[JA:	*18th C]*
1 limpet shell.	?
1 whelk shell.	?

Context [12] *Area B, fill of pit [342]*

4 mortar fragments.	?
2 bone fragments, possibly human ?	?

Context [13] *Area B, fill of pit or trench 343*

1 sherd Gabbroic with added temper (Fabric D).	LBA/EIA
1 sherd Post Medieval GRE.	19th C
[JA: North Devon gravel-tempered ware.	*post-1500]*

1 brick fragment.	19th C
2 Delabole slate fragments.	?
1 charcoal fragment.	?
7 bone fragments, possibly human ?	?

Context [15] *Area B, wall or hedge*

1 sherd Modern Flowerpot.	19th C
[JA: Cornish coarseware.	*18th - 19th C]*
2 brick fragments.	19th C
[JA:	*17th - 18th C]*

Context [16] *Area B, patch of building debris overlying wall [15]*

1 sherd Devon Medieval Coarseware.	13th to 14th C
[JA: Cornish 'B' ware.	*1400-1550]*

Context [17] *Area B, fill of pit trench beneath wall [15]*

1 sherd Gabbroic with added temper (Fabric D)	LBA/EIA

Context [18] *Area B, dump in higher levels of landscaping*

1 sherd Modern White Glazed Stoneware.	19th C
[JA: Nottingham stoneware.	*Late 18th C]*
1 sherd Modern Salt Glazed Stoneware.	19th C
[JA: White earthenware.	*1820-1880]*
2 fragments Modern terracotta roof tile.	19th C
[JA: pan tile]	
1 brick fragment.	19th C
2 mortar fragments.	?
2 iron fragments.	?
1 fish bone.	?
1 animal bone fragment.	?
1 limpet shell.	?

Context [19] *Area B, dump layer in lower landscaping layers*

1 sherd, Cornish Medieval Coarseware.	13th to 14th C
[JA: Cornish 'A' ware.	*1200-1500]*
1 clay pipe stem fragment.	18th to 19th C
[JA:	*17th C]*
1 broken flint pebble core.	Prehistoric
1 Boar's tooth.	?
2 animal bone fragments.	?
1 iron fragment.	?

Context [21] *Area B, dump layer in higher landscaping layers*

2 sherds Post-Medieval GRE.	18th to 19th C
[JA: North Devon gravel-tempered ware.]	
1 rimsherd Modern White Glazed Stoneware Transfer decorated.	19th C
[JA: Transfer printed white china.	*19th C]*
1 basal sherd Modern Salt glazed Stoneware.	19th C
[JA: Bristol brown stoneware; inkwell?	*post-c1830]*
1 clay pipe stem fragment.	18th to 19th C
1 shard of green bottle glass.	18th to 19th C
[JA: English green bottle glass.	*18th C]*
4 brick fragments.	19th C
3 mortar fragments.	?
1 oyster shell fragment.	?

Context [23] *Area B, dump layer in lower layers of landscaping*

2 sherds Post-Medieval GRE.	18th to 19th C
[JA: North Devon gravel-tempered ware.	
South Somerset jug handle with blackish glaze.	*Late 17C / early18C]*
1 sherd terracotta roofing tile.	18th to 19th C
[JA: Pan tile]	
1 red brick fragment.	19th C

[JA: Red, not micaceous and thus not local.]

Context [24] *Area B, dump layer in lower layers of landscaping*
1 rimsherd Post Medieval Red Earthenware. 17th C
[JA: North Devon; calcareous inclusions in fabric, pitted surface. 15th or 16th C]

Context [26] *Area B, dump layer in higher layers of landscaping*
1 sherd Post-Medieval GRE. 18th to 19th C
[JA: North Devon gravel-tempered ware.]
2 fragments clay pipe stem. 18th to 19th C
1 fragment of green bottle glass. 18th to 19th C
[JA: Thick glass, English green bottle. 17th or 18th C]
1 red brick fragment. ?
[JA: 18th C]
1 clinker fragment. ?
1 small hand forged iron nail. ?
1 winkle shell ?

Context [27] *Area B, dump layer in lower layers of landscaping*
2 sherds Post-Medieval GRE. 17th to 19th C
[JA: North Devon gravel-tempered ware.]
1 hand forged iron nail. ?
1 whelk shell. ?

Context [29] *Area B, dump layer in lower layers of landscaping*
1 sherd body / handle Post-Medieval GRE. 17th to 19th C
[JA: Cornish jug handle base. 17th or 18th C]

Context [30] *Area B, dump layer in lower layers of landscaping*
1 mortar fragment ?
1 winkle shell. ?

Context [32] *Area B, fill of pit beneath wall [15]*
2 fragments cut and shaped Delabole roofing slate. ?

Context [33] *Area B, redeposited material from JCB*
2 animal bone fragments. ?

Context [35] *Area B, dump layer in lower layers of landscaping*
1 red brick fragment. ?
[JA: 18th or 19th C]
2 mortar fragments. ?
1 hand forged iron nail. ?

Context [38] *Area B, dump layer in higher layers of landscaping*
1 fragment clay pipe stem. 18th to 19th C
[JA: 17th/early 18th C]
1 red brick fragment. 18th to 19th C
[JA: Probably 18th C]
1 small clinker fragment. ?

Context [42] *Area B, dump layer in lower layers of landscaping*
1 large mortar fragment with horsehair (vegetation) impressions. ?
[JA: Lime mortar, moulded, with trowel marks; originally over a rough surface; grass/horsehair impressions on base; rough and undeletable.]

Context [43] *Area B, dump layer in higher layers of landscaping*
6 sherds Modern White Glazed Stoneware, transfer decorated, with blue willow" pattern. 19th C
5 sherds Modern White Glazed Stoneware, Transfer decorated. 19th C
2 sherds Post-Medieval GRE. 18th to 19th C
[JA: North Devon gravel-tempered ware]

3 fragments Modern Saltglazed stoneware drainpipe.	19th C
3 red brick fragments.	?
1 rimshard glass goblet.	19th C
2 iron fragments.	?
3 oyster shell fragments.	?
1 whelk shell.	?
6 clinker fragments.	?
1 fragment of copper slag.	?
6 animal bones.	?
2 bird bones.	?
1 lump of burnt limestone.	?
1 slate fragment.	?

Context [44] *Area B, dump layer in lower layers of landscaping*

1 sherd Modern Saltglazed Stoneware.	18th to 19th C
[JA: Raeren (probably), or Cologne, stoneware; shoulder sherd of mug or cup.]	*Early 16th C*
1 red brick fragment.	18th to 19th C
1 Delabole slate fragment.	?
2 animal bone fragments.	?

Context [45] *Area B, dump layer in higher layers of landscaping*

2 sherds Cornish Medieval Coarseware.	13th to 14th C
[JA: Cornish micaceous, 'B' ware.	*1400-1550]*
1 sherd Post-Medieval GRE.	19th C
[JA: North Devon gravel-tempered ware.	*Probably 19th C]*
1 fragment ceramic roofing tile.	15th to 18th C
[JA: Cornish post-medieval ridge tile.]	

Context [47] *Area B, dump layer in higher layers of landscaping*

1 sherd North Devon Post-Medieval Gravel Tempered GRE.	18th to 19th C
4 sherds red floor tile.	18th to 19th C
[JA: Pan tiles]	
1 sherd roof tile.	18th to 19th C
[JA: North Devon gravel-tempered ware ridge tile.]	
1 crab claw fragment.	?
1 Beer Chert side scraper.	Neolithic / B A

Context [48] *Area B, topsoil*

1 basal sherd North Devon Post-Medieval GRE.	18th to 19th C
[JA: North Devon gravel-tempered ware.]	
1 sherd Modern White Glazed Stoneware.	19th C
[JA: Plain white Delft ware wall tile (as in bathroom).	*18th C]*
1 complete clay pipe bowl. SW style with WG incuse mark on base. **Fig 16**	1650 - 1680
[JA: Good polished finish.	*1660 - 1690]*
3 sherds roofing tile.	18th to 19th C
[JA: Pan tiles.]	

Context [49] *Area B, dump layer in higher layers of landscaping*

2 sherds Modern White Glazed Stoneware.	19th C
[JA: White china, white/grey stoneware.	*19th C, post 1830]*
1 sherd Modern Salt Glazed Stoneware.	19th C
[JA: English grey stoneware; white engobe.	*c1700 - 1720]*
1 whelk shell.	?
1 coal fragment.	?
1 piece of clinker.	?

Context [51] *Area B, dump layer in lower layers of landscaping*

2 sherds Modern White Glazed Stoneware.	19th C
[JA: English grey stone ware; white engobe.	*1700-1730*
Yellow slipware; Bristol Staffs., all-over iron glaze.	*c1690-1740]*
2 fragments clay pipe stem.	18th to 19th C
3 sherds terracotta roofing tile.	19th C

[JA: Pan tile}	
1 sherd green glazed floor tile.	18th to 19th C
3 iron fragments.	?
2 red brick fragments.	?
2 animal bone fragments.	?
1 shell fragment.	?
1 piece of coal.	?
Context [53] *Area B, dump layer in higher layers of landscaping*	
1 iron fragment.	?
Context [64] *Area B, dump layer in higher layers of landscaping*	
1 sherd Cornish Medieval Coarseware.	13th to 14th C
[JA: Cornish micaceous, post-medieval.]	
1 sherd Post-Medieval GRE.	18th to 19th C
[JA: North Devon gravel-tempered ware.	*post-1500]*
2 sherds Modern Salt Glazed Stoneware.	18th to 19th C
[JA: Rhenish or English.	*18th C]*
1 fragment clay pipe bowl.	17th C
[JA:	*c1680 - 1740]*
1 flint core **(Fig 11)**	Neolithic / B A
Context [65] *Area B, dump layer in lower layers of landscaping*	
1 sherd Post-Medieval GRE.	18th to 19th C
[JA: North Devon gravel-tempered ware.	*post-1500]*
4 red brick fragments.	18th to 19th C
[JA:	*18th C]*
1 mortar fragment.	?
2 iron fragments, 1 possibly a key.	?
Context [67] *Area B, dump layer in lower layers of landscaping*	
1 sherd Cornish Late Medieval Coarseware.	15th to 16th C
[JA: North Devon; yellow glaze.	*15th - 16th C]*
1 sherd Devon Post-Medieval Gravel Tempered GRE.	17th to 19th C
[JA: North Devon gravel-tempered ware.	*post - 1500]*
1 animal bone fragment.	?
Context [70] *Area B, dump layer in lower layers of landscaping*	
1 clay pipe stem fragment.	18th to 19th C
1 mortar fragment.	?
1 hand forged iron nail.	?
3 fragments of a rabbit jaw.	?
[JA: One is probably a shrew's jaw]	
Context [72] *Area B, dump layer in higher layers of landscaping*	
1 sherd Post-Medieval GRE.	17th to 19th C
[JA: North Devon gravel-tempered ware.]	
1 silvered copper alloy button.	19th C
1 animal bone fragment.	?
Context [74] *Area B, dump layer in higher layers of landscaping*	
1 sherd Modern White Glazed Stoneware.	19th C
[JA: Mocha-ware, English, industrial.	*1800 - 1830]*
2 sherds Post-Medieval GRE.	17th to 19th C
[JA: North Devon gravel-tempered ware. Jug base?	*17th or 18th C*
South Somerset slipware.	*18th C]*
1 shard of Modern glass.	19th C
2 animal bone fragments.	?
[JA: One bone has been sawn.]	
Context [79] *Area B, dump layer in higher layers of landscaping*	
2 sherds (1 handle) Cornish Medieval Coarseware.	13th to 14th C
[JA: Both North Devon gravel-tempered ware; handle is from jug.	*post-1500]*

1 sherd Post-Medieval GRE.	17th to 19th C
[JA: Suggests that this is pre-medieval]	
1 sherd Modern Yellow Glazed Stoneware.	19th C
[JA: Bristol Staffs. yellow slipware.	*1680 - 1770]*
1 clay pipe stem fragment.	18th to 19th C
[JA:	*18th C]*
2 iron fragments.	?

Context [82] *Area B, fill of trench or pit*

2 sherds Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware)	13th to 14th C
[JA: Hand-made high medieval 'A' ware.	1250 - 1450]
1 primary cortical flint flake.	Prehistoric

Context [102] *Area D, late 19C landscaping layer*

1 sherd Cornish Late Medieval Coarseware (St Germans Ware).	15th C
[JA: Cornish post-medieval coarseware; hand-glazed.	*16th to 18th C]*
1 rimsherd Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffs Ware).	
[JA: Bristol Staffs; dish.	*1720-1800]*
1 clay pipe stem fragment.	18th to 19th C
1 brick / tile fragment.	18th to 19th C

Context [106] *Area D, dump layer between fish cellar floors*

1 rimsherd Post-Medieval GRE.	18th C
trail slip and comb decorated (Donyatt Ware).	
[JA: South Somerset or Honiton dish	*c 1800 - 1830]*
2 fragments Delabole roofing slate.	?
[JA: Suggests these slates may be from South Devon.]	
1 fragment red brick.	18th to 19th C
[JA:	*18th/early 19th C]*
4 mortar fragments.	?

Context [107] *Area D, dump layer between fish cellar floors*

1 sherd Modern White Glazed Earthenware. Hand painted.	19th C
[JA: Delft-ware	*18th C]*
2 fragments ceramic roofing tile (gravel tempered).	18th to 19th C
[JA: North Devon, ridge tile.	*17th - 18th C]*
1 brick fragment, hand made, (yellow clay).	17th to 18th C
[JA: Dutch brick	*Late 17th/18th C]*

Context [116] *Area D, dump layer between fish cellar floors*

3 clay pipe stem fragments.	18th to 19th C
[JA: One piece is from near mouth-piece.	*Late 17th/18th C]*
2 fragments ceramic roofing tile.	17th to 18th C
[JA: Cornish post-medieval ridge tile.]	
1 hand forged iron nail.	?

Context [119] *Area D, dump layer between fish cellar floors*

1 neck / shoulder sherd, Post-Medieval Stoneware (Bristol).	17th to 18th C
[JA: Pale grey stoneware. Shoulder piece; bottle shape. Unusual fabric; too pale to be Normandy?]	*17th or 18th C*

Context [120] *Area D, dump layer between fish cellar floors*

3 undiagnostic iron fragments.	?

Context [122] *Area D, on lower fish cellar floor*

2 clay pipe stem fragments.	18th to 19th C
[JA:	*Probably 17th C]*

Context [131] *Area D, low layer in alley to north of fish cellars*

4 fragments ceramic roofing tile.	18th C
[JA: Ridge tiles except the brightest which is a pan tile.	*18th C]*

Context [137] *Area D, layer above latest fish cellar*	
1 brick fragment.	19th C
1 fragment Modern glass.	19th C
[JA: Flask neck.	*Late 18th/19th C]*
1 hand forged iron nail.	?
1 animal bone.	?
Context [138] *Area D, in pit contemporary with latest fish cellar floor*	
18 sherds of a large stoneware storage jar (Martabani ?).	18th C
[JA: Purple stoneware; probably from South East Asia, from the port of Martaba in Burma, hence Martabani. Probably transported as a ship's container rather than imported as a pot.]	
Context [145] *Area D, dump layer between fish cellar floors*	
1 clay pipe bowl and stem, with roulette decoration. **Fig 16**	18th C
1 heel / stem of clay pipe.	18th C
2 fragments clay pipe bowl.	18th to 19th C
8 clay pipe stem fragments.	18th to 19th C
[JA: These clay pipes have big heels and are of a close date range	*c1680 - 1710]*
1 animal bone fragment.	?
Context [146] *Area D, dump layer between fish cellar floors*	
2 sherds Modern White Glazed Stoneware.	19th C
[JA: Burnt Delft ware. Two sherds from one dish. Floral pattern with spidery lines. Probably English.]	*Probably 18th C*
1 sherd Post-Medieval GRE.	17th to 19th C
[JA: Micaceous sherd; not North Devon	*16th or 17th C]*
1 bone fragment.	?
1 coal fragment.	?
Context [147]	
1 granite fish press weight with iron hook leaded in to top	Post-medieval
Context [153] *Area C, second gravel layer from top*	
1 rimsherd Post-Medieval GRE.	17th to 19th C
[JA: Flowerpot.	*18th - 20th C]*
Context [167] *Area C, fill of pit south of gateway*	
2 stone fragments.	?
[JA: One is lime burning waste.]	
Context [169] *Area C, fill of pit south of gateway*	
2 Delabole slate fragments.	?
1 mortar fragment.	?
Context [170] *Area C, fill of pit south of gateway*	
1 clay pipe stem fragment.	18th to 19th C
[JA:	*Probably 18th C]*
1 fragment of a flint core.	Prehistoric
[ALJ/SH: Borer. Intentionally thick flake with screwing marks at point	*Bronze Age]*
1 fragment Delabole slate.	?
1 coal fragment.	?
Context [171] *Area C, fill of pit south of gateway*	
1 basal sherd Modern GRE.	19th C
[JA: North Devon plain slipware. Cup or closed vessel.	*Late 18th C]*
2 mortar fragments.	?
Context [172] *Area C, fill of pit south of gateway*	
1 sherd Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware).	13th to 14th C
[JA: Cornish medieval. Very large vessel.	*14th or 15th C]*
1 sherd Devon Post-Medieval Gravel Tempered GRE.	17th to 19th C
[JA: North Devon gravel-tempered ware.	*Post-medieval]*

1 iron fragment.	?
1 large brick fragment.	19th C
[JA: Hand-made brick.	*Probably 18th C]*
1 mortar fragment.	?
1 slate fragment.	?

Context [178] *Area D, fill layer of lane*

1 brick fragment.	19thC
[JA: Not a Roman tile.	*Probably 18th C]*
1 Modern glass fragment.	19th C
[JA: English beer bottle glass.	*18th C]*
1 iron fragment.	?

Context [180] *Area D, fill layer of lane*

2 sherds (1 rimsherd) Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffordshire Ware).	
1 sherd Modern White Glazed Stoneware.	19th C
2 clay pipe stem fragments.	18th to 19th C
2 fragments terracotta roofing tile.	19th C
1 Delabole slate fragment.	?
2 hand forged iron nails.	?
1 animal bone fragment.	?

Context [181] *Area D, fill layer of lane*

1 flint pebble core.	Prehistoric
[ALJ/SH: Crude scraper, very steep angle of retouch .	*Neolithic?]*
2 Delabole slate fragments.	?

Context [186] *Area D, dump layer between fish cellar floors*

1 shard green bottle glass.	19th C
[JA: English beer bottle.	*18th C]*
1 iron fragment.	?
[JA: 1 sherd prehistoric/Roman pottery.	*Prehist / Roman]*

Context [188] *Area D, dump layer between fish cellar floors*

1 struck waste flint cortical flake.	Prehistoric

Context [193] *Area D, layer beneath highest fish cellar floor*

1 clay pipe stem fragment.	18th to 19th C
4 terracotta roofing slate fragments.	18th to 19th C
[JA: Pan tile; Bridgewater, or the Netherlands?]	
1 Delabole slate fragment.	?
1 iron fragment.	?

Context [195] *Area D, Middle Street cobbling*

1 sherd Post-Medieval Yellow Glazed Stoneware.	17th to 18th C
[JA: Bristol Staffordshire ware.	*1670 - 1770]*

Context [199] *Area D, fill of pit beneath Middle Street*

1 small waste flint chip.	Prehistoric

Context [201] *Area D, fill of grave*

15 human bone fragments	*Early medieval*

Context [202] *Area D, fill layer of lane*

1 complete clay pipe bowl, SW style undecorated.	17th to 18th C
[JA:	*1690 - 1730]*
1 sherd terracotta roof tile.	18th to 19th C
[JA: Imported from Hampshire or South-East England; pegged tile, as used on walls.]	*18th C*
2 fragments hand blown green bottle glass.	17th to 18th C
[JA:	*post - 1750]*

1 hand forged iron nail.	?
Context [203] *Area D, fill layer of lane*	
1 sherd Post-Medieval GRE. Sgrafitto decoration. (Donyatt Ware).	17th to 18th C
[JA: North Devon Sgrafitto; open form vessel.	*c1630 - 1710]*
1 sherd Post-Medieval Salt Glazed Stoneware.	17th to 19th C
[JA: Frechen stoneware	*post - 1600]*
2 fragments Terracotta roofing tile.	18th to 19th C
[JA: Pan-tile with curved profile	*post-1700]*
1 animal bone fragment.	?
2 complete clay pipe bowls, SW style undecorated.	17th to 18th C
[JA: One 1710 - 1750; the other 1700 - 1740.]	
Context [204] *Area D, layer below top fish cellar floor*	
1 hand forged iron nail.	?
Context [206] *Area D, layer below top fish cellar floor*	
1 sherd Modern White Glazed Stoneware.	19th C
[JA: White Staffordshire, salt-glazed stoneware	*1740 - 1770]*
1 clay pipe stem fragment.	18th to 19th C
[JA:	*Probably 18th C]*
1 red brick fragment.	?
[JA:	*18th/early 19th C]*
1 animal bone.	?
1 coal fragment.	?
Context [209] *Area D, layer below Middle Street*	
1 sherd Post-Medieval Yellow Glazed Stoneware.	1730 - 1750
trail slip and comb decorated. (Bristol Yellow Slipware).	
[Allan 1984, fig 121.]	
[JA: Bristol Staffordshire, yellow slipware.	*1680-1770]*
1 sherd Cornish Late Medieval Coarseware (St Germans Ware).	15th C
[JA: Cornish coarseware, post-medieval, 'weedy'.	*Post-1500]*
1 clay pipe stem fragment.	17th to 18th C
[JA:	*Probably 17th C]*
Context [211] *Area B, fill of animal hole*	
1 iron fragment	?
Context [212] *Area B, layer overlying medieval grave [215]*	
7 sherds Granitic Derived Fabric A	LBA/EIA
11 sherds Gabbro Fabric C	Prehist/Roman
17 sherds Gabbro with added temper Fabric D	LBA/EIA
2 Grass marked" Gabbroic sherds.	8th to 12 C
11 sherds Gabbroic (cf Sandy Lane ware ?)	11th/12th C
1 basal sherd Cornish Medieval Coarseware.	13th to 14th C
3 sherds Cornish Medieval Coarseware.	13th to 14th C
[JA: Body sherds; one is late medieval or early post- medieval; others	*16th or 17th C*
are late medieval 'B' ware.	*15th or 16th C]*
1 necksherd Cornish Late Medieval Coarseware (Lostwithiel Ware).	14th to 15th C
[JA: Wheel-thrown jug neck; Cornish.	*Late Med/16th C]*
1 sherd Cornish Late Medieval Coarseware (St Germans Ware).	15th C
1 sherd ceramic roofing tile.	?
[JA: Hand-made ridge tile.	*Late medieval]*
1 miscellaneous retouched flint flake (**Fig 11**).	Neolithic / B A
1 Chert blade.	Neolithic / B A
[JA:	*Mesolithic?]*
[ALJ/SH: Not a microlith, but that sort of shape	*Mesolithic?]*
1 flint pebble.	?
4 water rounded white quartz pebbles.	?
Numerous small bone fragments, possibly human ?	?

Context [213] *Area B, fill of pit*	
1 leaf shaped flint arrowhead. **Fig 11**	Neolithic
Context [215] *Area B, fill of medieval grave*	
2sherds Granitic Derived Fabric A	LBA/EIA
4 sherds Gabbro Fabric C	Prehist/Roman
7 sherds Gabbro with added temper Fabric D	LBA/EIA
6 sherds (1 grassmarked) of Gabbroic fabric.	8th to 12th C
[JA: Suggests it is prehistoric, being thick and low-fired, except the grass-marked sherd which is thinner, sooted; an unusually deep vessel.]	
9 water rounded white quartz pebbles.	?
3/4 complete quartzite rubbing / hammerstone with flat surface and striations (**Fig 11**).	Prehistoric
1 water rounded greenstone pebble. Whetstone ?	Prehistoric
1 hand forged iron nail.	?
Context [217] *Area B, fill of large pit to south of 'banquetting house'*	
3 sherds Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware).	13th to 14th C
[JA: Probably wheel-thrown, 'B' ware.	*1400-1550]*
1 sherd / handle spring Post-Medieval Salt Glazed Stoneware.	17th C
Frechen Bellarmine Jug.	
[JA: Tail of handle; Frechen.	*Late 16th/17th C]*
1 fragment ceramic roofing tile.	?
[JA: Ridge tile in unusual fabric.	*Late med?]*
1 waste Chert flake.	Prehistoric
1 animal bone fragment.	?
1 burnt limestone lump.	?
Context [218] *Area B, fill of large pit to south of 'banquetting house'*	
2 sherds Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware).	13th to 15th C
Shoulder of jar with 2 horizontal cordons, a low diagonal incised line. Possibly pre-firing graffiti.	
[JA: Late medieval wheel-thrown, Cornish micaceous 'B'.	*1400-1550]*
Context [225] *Area B, fill of pit or trench [335]*	
1 rimsherd Gabbroic with added temper Fabric D, **P2, Fig 12**	Early/ Middle I A. c1000 to 100 BC
1 waste flint cortical flake.	Prehistoric
Context [226] *General spoil from area B*	
3 rimsherds Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware).	13th to 14th C
8 sherds Cornish Medieval Coarseware.	13th to 14th C
1 sherd Cornish Late Medieval Coarseware (Lostwithiel Ware), with white painted clay decoration. **Fig 13**	14th to 15th C
1 rimsherd Cornish Late Medieval Coarseware (Lostwithiel Ware). Bowl	14th to 15th C
[JA: North Devon coarseware.	*13th - 15th C]*
2 sherds Cornish Late Medieval Coarseware.	14th to 15th C
1 sherd French Medieval Ware (N France / Saintonge Ware) Green glazed, applied scale decoration. **Fig 13**	14th C
[JA: Sandy ware of Southern English, Bristol or Southampton, fabric; Exeter fabric 44. Pellets decoration on outside.] ***Fig 13***	*Mid 13th C*
1 rimsherd Cornish Post-Medieval Coarseware (Lostwithiel Ware). Bowl. **Fig 14**	16th to 17th C
3 rimsherds North Devon, Post Medieval Gravel Tempered GRE. Bowls. **Fig 14**	17th to 19th C
1 rim / handle North Devon, Post Medieval Gravel Tempered GRE. Jug.	18th to 19th C
2 rimsherds North Devon, Post Medieval GRE. Jugs.	17th to 19th C
1 basal angle sherd Post Medieval GRE.	17th to 19th C
11 sherds Post Medieval GRE.	17th to 19th C

4 sherds (1 rimsherd) Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffs. Ware).	
[JA: Bristol Staffs. feathered press-moulded dish; one with trailing.	*1720 - 1800]*
1 rimsherd Post-Medieval Yellow GRE.	19th C
Sgraffito decoration. (Bristol / Donyatt Ware). **Fig 14**	
[JA: North Devon sgraffito.	*Late 17th C]*
2 sherds Post-Medieval Yellow GRE.	19th C
Trail slipped decoration. (Bristol / Donyatt Ware).	
[JA: North Devon trailed slipware, Barnstaple.	*Late 17th C]*
7 sherds Modern White Glazed Stoneware.	19th C
17 sherds Modern White Glazed Stoneware, Transfer decorated.	19th C
[JA: Includes one with Willow Pattern]	
2 sherds undiagnostic porcelain.	19th C
4 sherds Modern Salt Glazed Stoneware.	19th C
[JA: Looking at post-medieval glazed wares, notes:	
Chinese export porcelain cup.	*1700 - 1750*
Bristol Delftware, floral decoration with triangular leaves.	*1720 - 1750*
Delftware, probably English.	*18th C*
White glass.	
Creamware.	
Marmalade jar.]	
1 basal sherd Post-Medieval Saltglazed Stoneware (Westerwald Ware).	17th C
Base of tankard.	
[JA:	*1700 -1725]*
2/3 complete clay pipe bowl. Decorated with	1820 - 1830
coat of arms and bust of George IV.	
1 fragment clay pipe bowl.	19th C
9 fragments ceramic roofing tile. 2 gravel tempered.	17th to 18th C
[JA: North Devon ridge tile. Thumb-pressed ridge and lower, wavy	*18th C*
finger line decoration.	
Cornish post-medieval ridge tile.	
North Devon gravel-tempered ridge tile.	
Pan tile.]	
4 brick fragments.	18th to 19th C
[JA: Includes a fragment of a Dutch red brick.]	
2 floor tile fragments with yellow glaze.	18th to 19th C
[JA: Dutch floor tiles; slip and yellow glaze; scraped slip and sanded	*16th C*
backs]	
Ceramic clover leaf / cross shaped tile / roof finial ?	Medieval ?
[JA: Trefoil of Roman cement; architectural fragment. ***Fig 16***	*c1800 - 1830]*
6 shards dark green Post-Medieval bottle glass.	18th to 19th C
[JA: Green English bottle glass	*18th C]*
1 shard Modern bottle green glass.	19th C
[JA: Codd bottle.	*19th C]*
1 neck / shoulder hand blown square Case" bottle.	17th C
1 fragment green window glass.	?
1 flint pebble core.	Prehistoric
1 flint flake side scraper.	Neolithic / B A
1 flint fabricator **Fig 11**	Neolithic / B A
4 waste flint flakes.	Prehistoric
[PH: One may be a gunflint]	
1 flat slab of quartzite. 2 surfaces polished. Floor tile / whetstone.	?
1 fragment Delabole roofing slate.	?
2 triangular shaped lead artefacts, both perforated by a pair	?
of holes at the widest part of the triangle.	
1 has a cross incised on one flat surface. Fishing weights ?	
[JA: Agrees that these are probably fishing weights]	
1 large lump of lead, used as a seal or plug.	Post-Medieval ?
[JA: Socket for a pintle; architectural fragment]	
4 amorphous lead fragments.	?
1 iron horse shoe.	Medieval
[JA: Horse shoe appears to have been painted with a pitch-like	*17th - 18th C*
substance.]	

3 hand forged iron nails.	?
1 lump of clinker.	?
6 sea shell fragments.	?
20 animal bones.	?

Context [227] *Area B, spoil from first 10m east of pillbox*

6 sherds Granitic derived (Fabric A). including **P4, Fig 12**	LBA/EIA
1 sherd Granitic Admixture Fabric **P5, Fig 12**	LBA / EIA
2 sherds oxidised Granitic derived ware (Fabric B).	I A / Rom-Brit
7 sherds Gabbroic ware (Fabric C) including **P6, Fig 12**	Prehist / Rom
12 sherds Gabbro with added temper(Fabric D) including **P7-10, Fig 12**	LBA/EIA
4 sherds Sandy ware (Fabric F) including **P11**	LBA/EIA
1 handle / rimsherd Post Medieval GRE.	17th to 19th C
1 sherd Post Medieval GRE.	17th to 19th C
1 sherd Post-Medieval Yellow GRE.	19th C
Trail slipped decoration. (Bristol / Donyatt Ware).	
[JA: Bristol Staffordshire yellow slipware.	*1680 - 1770]*
7 sherds Modern White Glazed Stoneware.	19th C
1 sherd Modern White Glazed earthenware. Transfer decorated.	19th C
1 sherd Modern White Glazed Stoneware.	19th C
[JA: Tin glaze; very bright and glossy; possibly exotic (eg Spanish?), but sherd too small to say.]	
2 floor tile fragments (green glazed).	18th to 19th C
[JA: Dutch floor tiles; dark green glaze.	*16th C]*
1 floor tile fragment (yellow glazed).	18th to 19th C
[JA: Cornish tile fragment.	*16th or 17th C]*
4 brick / floor tile fragments.	18th to 19th C
[JA: One of these bricks was made with china-clay waste and is thus probably Cornish.	*Post-1750*
Dutch floor tile with dark green glaze.	*16th C*
Dutch floor tile with slip and yellow glaze.	*16th C]*
1 roofing tile fragment. (Fabric cf. Lostwithiel Ware).	15th to 17th C
[JA: Cornish post-medieval ridge tile.]	
12 fragments burnt clay or daub, some of which may be parts of 'loomweights'	Prehist to Med
[JA: Suggests that at least one of these may be a part of a prehistoric loom-weight]	
1 fragment Medieval green window glass.	14th to 15th C
[JA: Window glass.	*17th/early 18th C]*
1 flint burin / awl.	Neolithic / B A
1 cortical waste flake.	Prehistoric
[ALJ/SH: Possibly a core-rejuvenation flake]	
1 Delabole slate fragment.	?
1 clay pipe stem fragment.	18th to 19th C
2 shards, hand blown green bottle glass.	17th to 18th C
[JA: English green bottle glass.	*18th C]*
1 fragment Modern white window glass.	19th C

Context [228] *Spoil in Area A, west of pillbox*

1 sherd Granitic Derived ware (Fabric A).	LBA/EIA
1 sherd Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffordshire Ware).	
[JA: Bristol Staffordshire, 1720 - 1800]	
2 handle sherds Post-Medieval Saltglazed Stoneware. (Frechen Ware).	17th to 18th C
[JA: Drinking jug/bellarmine; Frechen]	
1 brass cartridge case, Small calibre.	20th C.
1 copper alloy heraldic livery button. **Fig 16**	18th to 19th C

Context [229] *Spoil from Area B between 20 and 50m east of pillbox*

26 sherds Devon Medieval Coarseware (Exeter Ware Fabric 40).	13th to 14th C
Jug with applied lug on rim. Mottled green glaze decoration.	
[JA: Wheel-thrown jug; probably 14th century; thumbed base; pulled lip (as in Allan 1984, no.1430); globular, baggy form (as in	*1250 - 1400*

ibid, no. 1518). Applied moulded face with eyes and sad mouth on rim. Cherty fragments and sanadine in fabric; like Exeter fabric 43; East Devon or South Somerset.] **Fig 13**

1 sherd Cornish Late Medieval Coarseware (St Germans Ware).	14th to 15th C
White paint decoration on rim interior.	
[JA: Jug.]	
1 sherd Post-Medieval Yellow GRE.	18th C
Press Moulded, trail slip and comb decorated (Staffordshire Ware).	
[JA: Bristol Staffordshire, wheel thrown, slipware	*1670 - 1770]*
1 ceramic floor tile fragment.	18th to 19th C
[JA: Tile with stabbed prick marks; red.	*Probably 18th C]*
1 clay pipe stem fragment.	18th to 19th C
[JA:	*Probably 18th C]*
1 flint core preparation flake.	Prehistoric
1 Miscellaneous retouched flint flake.	Prehistoric

Context [230] *Area B, fill of pit cutting medieval grave [338]*

5 sherds Granitic Admixture ware (Fabric B), including **P3, Fig 12**	LBA/EIA
4 sherds Gabbroic ware (Fabric C).	Prehist/Roman
3 sherds Cornish Medieval Coarseware.	13th to 14th C
[JA: Probably late medieval Cornish micaceous, 'B' ware	*1400-1550]*

Context [231] *Spoil from Area D, the northern 15m*

4 bodysherds Cornish Late Medieval Coarseware (Lostwithiel Ware).	14th to 15th C
[JA: Very micaceous, Lostwithiel?	*16th - 17th C]*
3 sherds Cornish Late Medieval Coarseware (St Germans Ware). **Fig 13**	14th to 15th C
[JA: Cornish coarsewares.	*16th - 17thC]*
1 sherd Post-Medieval Yellow GRE.	18th C
Press Moulded, marbled slip decorated (Staffordshire Ware). **Fig 14**	
9 sherds Post-Medieval Yellow GRE.	18th C
Trail slip and comb decorated (South Somerset / Donyatt Ware).	
2 Modern Yellow Glazed Stoneware.	19th C
41 sherds Modern White Glazed earthenware. Transfer decorated.	19th C
25 sherds Post-Medieval / Modern GRE.	16th C
1 sherd Modern Saltglazed Stoneware.	19th C
[JA: The post-medieval glazed wares from this context include:	
Sherd of Martabani ware;	
Creamware;	
Glazed black basaltz (Staffs., Bristol etc);	
Transfer-printed white earthenware;	
White salt-glazed stoneware;	
Pearlware;	
Bristol Staffs. yellow slipware;	
Bristol Staffs. press-moulded dish with marbled slip;	
North Devon gravel-tempered ware;	
Normandy stoneware;	
18th century English Delftware	
Frechen stoneware.	
All date before 1830]	
[JA: Also a sherd of Bristol stoneware;	*Post - 1830*
and sherd of micaceous redware, possibly Merida ware, from Portugal.]	
1 complete clay pipe bowl SW style undecorated.	18th C
[JA:	*1680-1730]*
38 clay pipe stem fragments.	18th to 19th C
[JA: One stem is decorated with diamond marks; probably Dutch.	*17th C*
Another has WG incuse; see context 48, above]	
4 sherds Industrial stoneware (drainpipe ?)	19th C
33 fragments terracotta / earthenware roofing tile.	19th C
[JA: Largely pan tiles, either Somerset or Dutch, but one is a fragment of a cloam oven, possibly North Devon]	
12 mortar fragments.	?
17 glass fragments.	?

[JA: All date before mid-19th C.]	
23 hand forged iron objects mostly nails.	?
1 iron pair of scissors.	19th C
1 clinker fragment.	?
2 copper alloy buttons.	18th to 19th C
1 copper alloy coin.	?
[JA	*19th C]*
1 copper alloy tack.	18th to 19th C
1 lead sounding weight.	18th to 19th C
1 lead fragment.	?
27 animal bones.	?
[JA: One bone has two sawn ends, unusual?]	
2 fish bones.	?
4 sea shells.	?
2 natural flint nodules.	?
[ALJ/SH: one is greensand chert]	
2 flint cores.	Prehistoric
5 waste flint flakes.	Prehistoric
[ALJ/SH: One very tiny with deliberately serrated edge	*Neolithic?]*
2 brick fragments.	19th C
[JA: One is a large hand-made brick used in a furnace; not a normal hearth]	*18th C?*
1 roofing tile fragment.	19th C
1 mother of pearl inlay strip for a knife handle.	19th C

Context [232] *Spoil from Area D, immediately north of gatehouse*

2 sherds Post-Medieval GRE.	18th to 19th C
[JA: South Somerset ointment jar.	*18th C*
Green glazed imported sherd. Globular vessel, pale grey fabric; possibly Saintonge?]	*Post-medieval*
1 sherd Modern White Glazed Stoneware.	19th C
[JA: Staffordshire white salt glaze stoneware plate.	*1740 - 1760]*
1 sherd Modern White Glazed Earthenware.	19th C
[JA: Plain Delft ware chamber pot, English.	*1680 - 1740]*
2 clay pipe stem fragments. **Fig 16**	18th to 19th C
1 pig's tooth.	?
1 animal bone.	?
1 ridge tile fragment.	18th to 19th C
[JA: North Devon gravel-tempered ridge tile.]	
1 lump of slag / clinker	?
[JA: Lump of tap slag]	
2 flint pebbles.	?
1 waste flint flake.	Prehistoric

Context [233] *Topsoil in Area A*

1 sherd Granitic derived ware (Fabric A).	LBA/EIA

Context [235] *Area A, fill of round house(?) floor*

1 basal sherd Granitic derived ware (Fabric A).	LBA/EIA
1 rimsherd Granitic Admixture ware (Fabric B).	LBA/EIA
6 sherds Granitic Admixture ware (Fabric B).	LBA/EIA
4 sherds Gabbroic ware (Fabric C), one with possible carination	LBA / EIA
1 sherd black sandy ware (Fabric F) **P1** non-local	LBA/EIA
3 waste flint flakes.	Prehistoric
[ALJ/SH: One a borer on a blade, but with broken point]	
1 granite saddle quern	Prehistoric
1 copper ingot (?)	Prehistoric (?)

Pillbox [PB] *Area A, spoil from vicinity of pillbox*

1 sherd Gabbro (Fabric C).	Prehist / Rom
1 sherd Modern White Glazed Stoneware. Transfer decorated.	19th C
[JA: Transfer decorated white earthenware.	*19th C]*
2 clay pipe stem fragments.	18th to 19th C

[JA:	*Probably 17th C]*
2 shards green bottleglass.	19th C
[JA: English green bottle glass, neck.	*Late 17th/Early*
1 flint pebble core.	Neolithic / B A
1 Chert blade.	Neolithic / B A
[JA: Suggests that these flints may be Mesolithic.	*Mesolithic ?]*

Pillbox [PB 2] *Area A, spoil from vicinity of pillbox*

1 sherd Gabbroic ware (Fabric C).	I A / Rom-Brit
3 sherds Post-Medieval GRE.	18th to 19th C
[JA: One is a fragment of a Dutch floor tile; sandy red fabric with blackish glaze.	*16th C*
Another is North Devon ware.	*16th C*
Last is Cornish coarseware with yellow glaze.	*18th or 19th C]*
1 sherd Modern White Glazed Stoneware.	19th C
[JA: White earthenware, transfer printed.	*post-1780]*

APPENDIX 3 NOTES ON HUMAN BONES FROM CHRISTIAN BURIAL

Anthropobiological examination

In February 1997 Simon Mays of the Ancient Monuments Laboratory (English Heritage) subjected to an anthropobiological examination the top of the skull and central parts of two femurs of a human skeleton, found in a grave cut by the sewer trench in Area B (contexts: cut 338; fill 215). The complete fusing of the suture of the skull indicated that the person was past middle age when he or she died. Unfortunately the lack of either the pelvis or the front of the skull meant that the body's sex could not be determined (Simon Mays, pers comm).

Radiocarbon dating

The bones were sent to the Scottish Universities Research and Reactor Centre (SURRC), East Kilbride, for radiocarbon dating. As the volume of material was too low for Radiometric ^{14}C measurement (total weight being less than 200g), the bones were prepared at SURRC and sent for AMS ^{14}C measurement at the University of Arizona NSF AMS Facility.

The result obtained for the sample (Ref. No. AA-28391) was 655 ± 55 BP, $\delta^{13}C$ = -21.7‰.

Calibrated Age Ranges:

1 sigma	cal AD 1277-1389, cal BP 673-561
2 sigma	cal AD 1260-1410, cal BP 690-540

The ^{14}C ages are quoted in conventional years BP (before 1950 AD). The errors are expressed at the one and two sigma levels of confidence. Calibrated age ranges are determined from the University of Washington, Quaternary Isotope Laboratory, Radiocarbon Dating Program, 1987. The 20-year atmospheric calibration curve is used, and the calendar age ranges are obtained from intercepts (Method A).

The conventional age and calibrated age ranges were calculated by Philip Naysmith of SURRC on 30th March 1998, checked by Dr Gordon Cook of SURRC.

APPENDIX 4 OTHER POSSIBLY HUMAN BONES

Fragments of poorly preserved bones from three contexts and identified as possibly human in Carl Thorpe's finds report were inspected in 1998 by Dr Tony Thould, retired specialist from Treliske Hospital, Truro.

Context 12

Dr Thould agreed that the bones are possibly human, and are the top end of an ulna and part of a metacarpal.

Context 13

The bone fragments are too small and fragmentary for Dr Thould to be sure that they are human. The bones are very dense, possibly either through having been under heavy stress or being the subject of disease.

Context 201

These bones, from what appears to be a grave cut within the village, are human. A number of rib fragments are compatible with being human. In addition there is a possible fragment of a clavicle, and a possible fragment of a pelvis, from the sacro-iliac joint area. Another bulbous bone with an articulatory area may have been part of the heel bone, the calcaneum, although this is very uncertain. The person, who could not be sexed, will have been an adult, and more likely mature rather than young.

Radiocarbon dating

The bones from context 201 were sent to the Scottish Universities Research and Reactor Centre (SURRC), East Kilbride, for radiocarbon dating. As the volume of material was too low for Radiometric ^{14}C measurement (total weight being less than 200g), the bones were prepared at SURRC and sent for AMS ^{14}C measurement at the University of Arizona NSF AMS Facility.

The result obtained for the sample (Ref. No. AA-28391) was 1075 ± 60 BP, $\delta^{13}C$ = -21‰ assumed ('...assumed because there was insufficient collogen in the sample we extracted to allow measurement. The difference between the age based on an assumed value compared with measured will only be 10-20 years.' Dr Gordon Cook, pers comm).

Calibrated Age Ranges:

1 sigma	cal AD 893-1014, cal BP 1057-936
2 sigma	cal AD 818-1030, cal BP 1132-920

The ^{14}C ages are quoted in conventional years BP (before 1950 AD). The errors are expressed at the one and two sigma levels of confidence. Calibrated age ranges are determined from the University of Washington, Quaternary Isotope Laboratory, Radiocarbon Dating Program, 1987. The 20-year atmospheric calibration curve is used, and the calendar age ranges are obtained from intercepts (Method A).

The conventional age and calibrated age ranges were calculated by R. Anderson of SURRC on 27th November 1998, checked by Dr Gordon Cook of SURRC.

APPENDIX 5 ANALYSIS OF SMALL COPPER INGOT

The small pasty-shaped ingot found during the sewer watching brief in 1995, within the fill [235] of the probable late prehistoric round house [335] on the southern slopes of the Mount, within the line of the Mackerel Bank fortification, was subjected to preliminary analysis by Tony Ball, Technician at the Camborne School of Mines, with the consent of Dr Duncan Pirrie and Dr Beer. A small chip taken from one end of the ingot was inspected using a Scanning Electron Microscope coupled to a Electron Dispersive Spectrophotometer, the former looking at the material, and the latter the chemical content.

The ingot is of very pure copper with an oxidised surface containing lead with tin; the further in to the ingot one explores, the purer the copper becomes. Flowing structures and copper dendrites seen in the polished surface of the sample indicate that the copper had been heated or smelted.

X-ray graphs were prepared for the 'dark metal', 'light metal', the 'green/brown contact', and the 'brown crust' (see Figs 17, 18, 55 and 56). The 'dark metal' graph is dominated by three copper (Cu) peaks and two low tin (Sn) peaks. The 'light metal' has a lead (Pb) peak, a lesser peak of chlorine (Cl), and several low copper (Cu) and lead (Pb) peaks. At the 'green/brown contact' lead (Pb) again dominates, with lower readings of phosphorous (P), chlorine (Cl), tin (Sn) and copper (Cu). The 'brown crust' has four main peaks, of aluminium (Al), silicon (Si), lead (Pb) and phosphorous (P), and several lower peaks including iron (Fe), copper (Cu), potassium (K), calcium (Ca), magnesium (Mg) and lead (Pb).

Analyses quantifying metals were undertaken at various points on the surface of the polished sample but the range of elements measured was limited to just five (lead, tin, copper, chlorine and phosphorous) so meaningful comparisons with other prehistoric metal analyses are not as yet possible.

Contact

Element	% element	atom %
Lead (PbM)	54.83	53.21
Tin (SnL)	6.87	11.64
Copper (CuK)	0.80	2.53
Chlorine (Cl)	1.61	9.14
Phosphorous (P)	3.62	23.48

Metal phase (dark)

Element	% element	atom %
Lead (PbM)	0.22	0.77
Tin (SnL)	2.06	1.13
Copper (CuK)	96.51	98.75
Chlorine (Cl)	0.02	0.05
Phosphorous (P)	0.00	0.00

Metal phase (light)

Element	% element	atom %
Lead (PbM)	67.10	34.97
Tin (SnL)	0.42	0.39
Copper (CuK)	9.70	16.49

Chlorine (Cl)	15.81	48.16
Phosphorous (P)	0.00	0.00

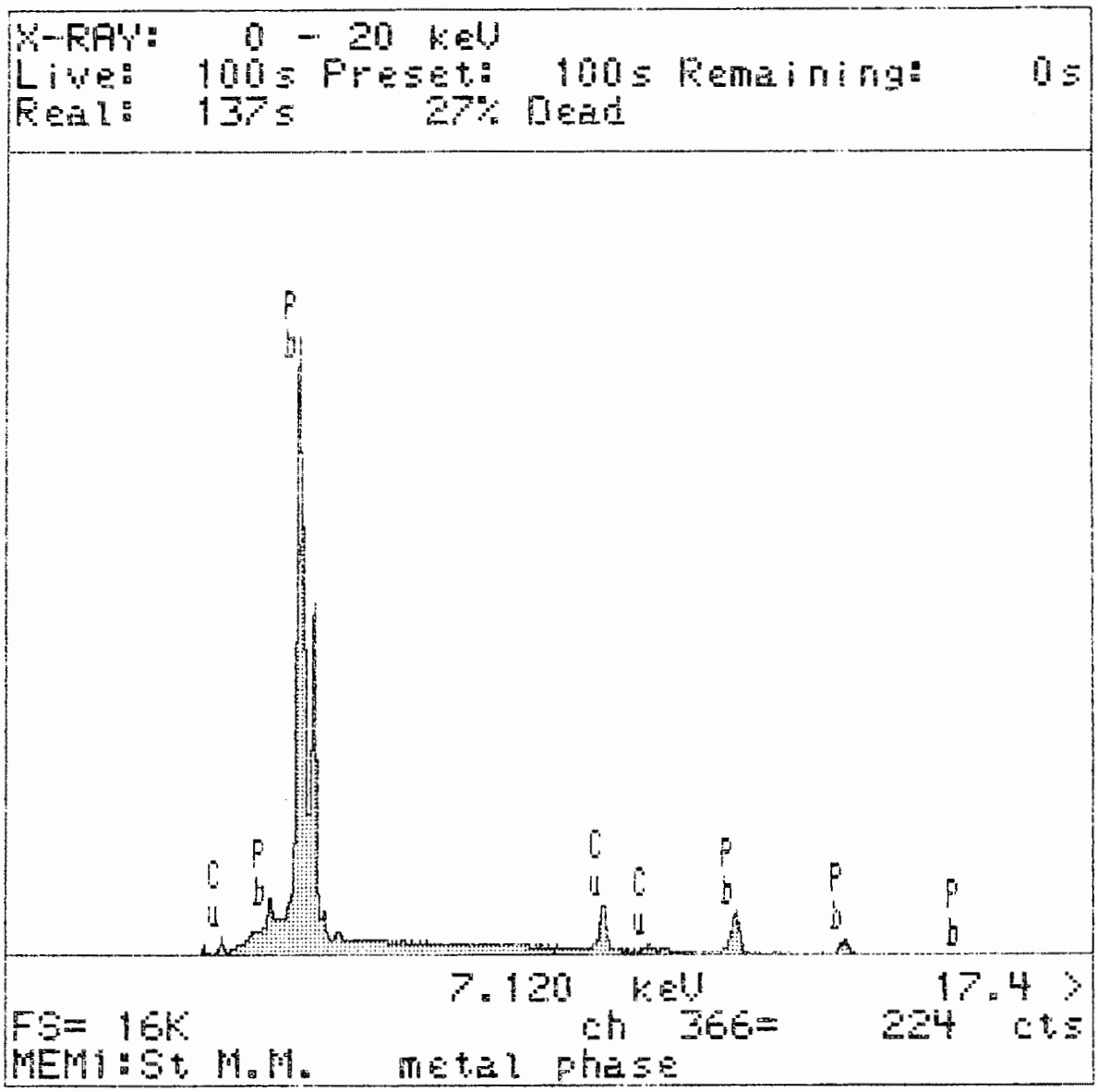


Fig 55 X-ray graph of light metal phase of the copper ingot

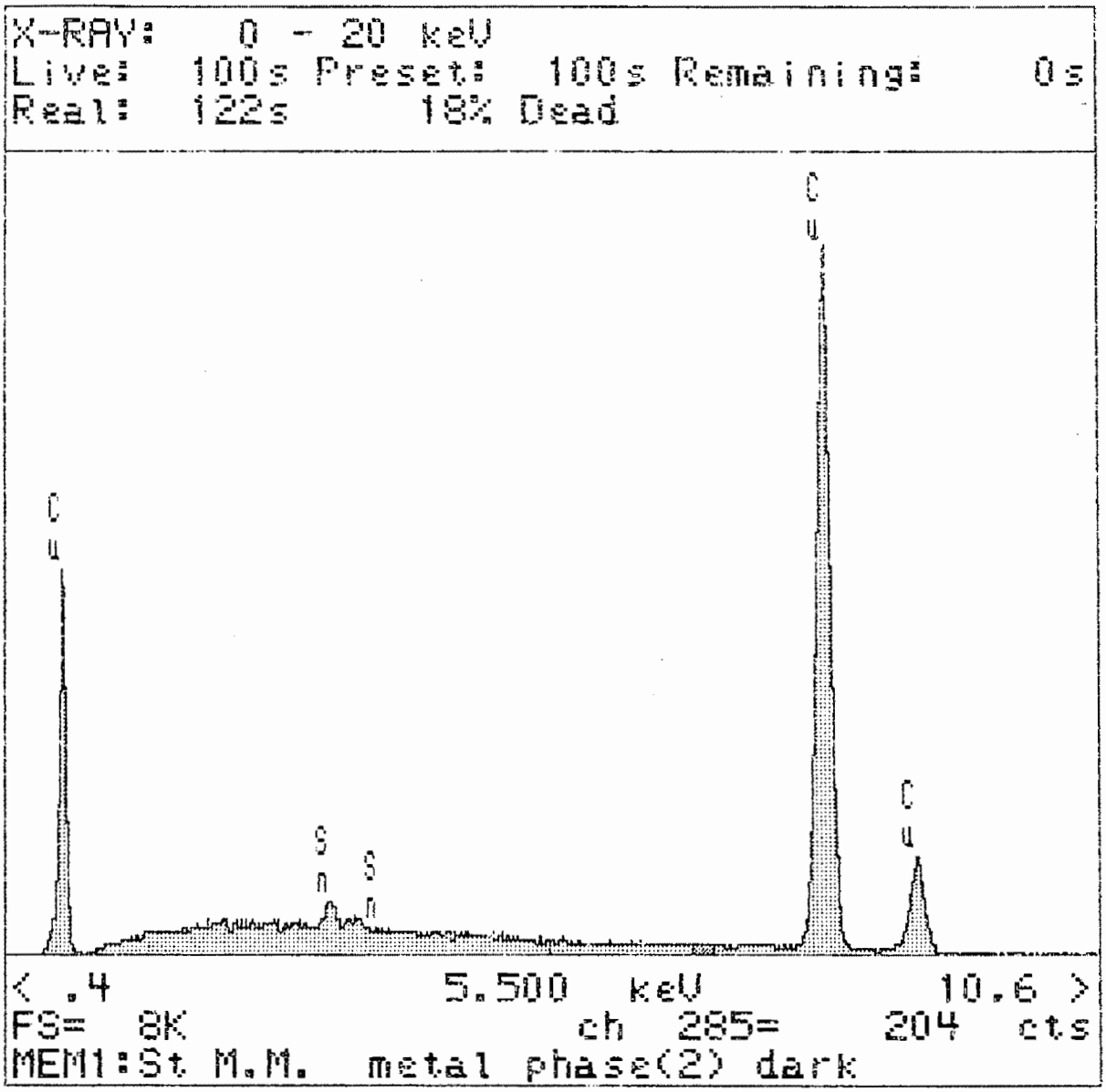


Fig 56 X-ray graph of dark metal phase of the copper ingot

APPENDIX 6 ST MICHAEL'S MOUNT COINS

Two coins found by Roy Powell, Head Gardener on the Mount, using a metal detector on the 1995 sewer trench's spoil tips, were x-rayed by the Wiltshire County Council conservation centre at Salisbury, and inspected by both Carl Thorpe (CAU) and Roger Penhallurick, Curator of the Royal Cornwall Museum, before being sent on the latter's advice to Dr Barrie Cook, Curator of Medieval and Early Modern Coinage at the British Museum, London. The following is a summary of Dr Cook's comments contained in two letters of October and November 1998.

Although identification of neither object is certain (due to their poor condition) it seems that one is a late medieval Flemish coin and the other a Nuremberg jetton.

Flemish coin
Base-silver double mite, or courte, of Philip the Good, duke of Burgundy, as Count of Flanders (1419-1467). Probably the issue of 1427, in circulation 'in Flanders until the mid 1430s when a coinage reform removed most earlier issues and replaced them with a common coinage throughout the Burgundian Netherlands. It would have been unlikely to have come to England much later than this.... Flemish coins of low denominations are occasionally found in this country, but it is not clear if they had any currency role, or should just be regarded as inconsequential losses or discards' (Barrie Cook, in letters).

Nuremberg jetton
Much too flimsy for its diameter to be a copper coin of the early modern period, so tentatively suggested to be a Nuremberg jetton of the late 16th or early 17th century. These 'were in virtually universal use throughout England in the 16th and early 17th centuries as reckoning counters, and it is a rare habitation site which does not produce any. They are certainly commoner than the contemporary coinage' (Barrie Cook, in letters).

APPENDIX 7 CONTEXTS RECORDED IN THE SUMMIT TRIAL TRENCHES

by Ann Reynolds

These summaries of the notes taken in the field by Ann Reynolds are arranged in numerical order, with the trench (T1 and T2) recorded (see Section 5 for general descriptions). Brief summaries of artefacts found in contexts are gleaned from the finds report (Appendix 8).

1 T1 **Layer**; typically 0.15m deep; dark brown, firm to friable silty deposit, containing modern debris such as sweet wrappers. Formed by visitor erosion from above and washed down by natural weathering/rain etc. Contains artefacts derived from upslope and of all periods from Roman period. Above bedrock.

Finds: Numerous artefacts from all periods from later prehistory to the 20th century, all residual.

2 T2 **Layer**; dark brown silty loam, topsoil. Above 3.

3 T2 **Layer**; typically 0.15m deep; light brown, firm to friable silty deposit, probably formed by visitor erosion from upper slopes. Above 4 and below 2. Probably 20th century in origin.

Finds: 1 natural flint flake and 1 sherd of modern stoneware.

4 T2 **Layer**; typically 0.01m deep; dark grey silty grit, quite friable, on interface between 3 and bedrock, possibly formed by degrading bedrock. Possibly natural.

Finds: Numerous, probably residual. Range from prehistoric/Roman sherd to medieval and post-medieval sherds, and numerous animal bones.

APPENDIX 8 LIST OF FINDS FROM ST MICHAEL'S MOUNT SUMMIT, 1997

by Carl Thorpe

A number of artefacts, 105 in total, were recovered during the 1997 excavation trenches in advance of the summit cobbling in 1997 (see Section 5 and Appendix 7). Pottery comprises the largest group within the assemblage although there were also stone artefacts, ceramics, iron, bone, glass, and clay pipes. The classification of pottery is that adopted for the St Michael's Mount Sewer finds report with the addition of the B ware Amphora described in 5.4.2. Pot sherds described in detail by Henrietta Quinnell in her discussion of the sewer finds (2.3.3) are indicated thus: **P12** etc.

Currently all the artefacts are being temporarily stored in the CAU offices, Kennall Building, Old County Hall, Truro, Cornwall.

Context [1]	
1 rimsherd Gabbroic ware (Fabric C) **P13, Fig 12**	Roman 3rd /4th C +
1 rimsherd Granitic Admixture (Fabric B) **P14A, Fig 12**	LBA ?
1basal angle sherd Granitic Admixture (Fabric B) **P14B, Fig 12**	LBA ?
5 sherds Gabbroic ware (Fabric C)	Prehist/Roman
2 sherds Gabbro with added temper (Fabric D)	LBA/EIA
1 bodysherd BV amphora	5th - 6th C AD
1 necksherd BI amphora **Figs 35 and 36**	5th - 6th C AD
1 bodysherd BI amphora	5th - 6th C AD
3 co - joining body sherds BII amphora **Figs 35 and 37**	5th - 6th C AD
1 sherd Cornish Medieval Coarseware	12th to 14th C
1 necksherd Late Medieval Glazed Red Earthenware	14th to 15th C
1 clay pipe stem fragment	18th to 19th C
1 sherd Modern White Glazed Stoneware.	19th to 20th C
4 red brick fragments.	18th to 19th C
2 iron fragments	?
1 shard of green bottle glass.	18th to 19th C
2 water worn flint pebbles (gravel)	?
2 flint flakes, natural	
Context [3]	
1 sherd Modern White Glazed Stoneware.	19th to 20th C
1 flint flake (natural)	
Context [4]	
1 sherd Gabbroic ware (Fabric C).	Prehist/Roman
3 sherds Cornish Medieval Coarseware	12th to 14th C
1 handle / rim sherd Cornish Late Medieval Coarseware Lostwithiel ware **Fig 13**	15th to 16th C
4 undiagnostic sherds Cornish Late Medieval Coarseware	15th to 16th C
1 sherd Cornish Post Medieval Coarseware Lostwithiel ware. Incised line decoration. **Fig 13**	15th to 16th C
1 handle sherds Post-Medieval Saltglazed Stoneware. Frechen Ware	17th to 18th C
1 ridge tile fragment	Medieval
4 red brick fragments	
3 waterworn flint gravel fragments	
2 cut and shaped roofing slates	Medieval ?
29 animal bones	?
Context Unstratified	
8 sherds Cornish Medieval Coarseware	12th to 14th C
3 sherds Cornish Late Medieval Coarseware	15th to 16th C
2 sherds glazed ridge tile	15th to 16th C

3 clay pipe stem fragments	18th to 19th C
7 animal bones including a cockspur	?
1 struck flint flake	Prehistoric

APPENDIX 9 LIST OF FINDS FROM LAND DRAIN, 1998

by Carl Thorpe

A number of artefacts, 176 in total, were recovered during the work on the 1998 land drain. Pottery comprises the largest group within the assemblage although there were also stone artefacts, ceramics, iron, bone, glass, and clay pipes. All the finds are unstratified. The classification of pottery is that adopted for the sewer finds report.

Currently all the artefacts are being temporarily stored in the CAU offices, Kennall building, Old County Hall, Truro, Cornwall.

Context	Unstratified	Provisional Date
1	neck/handle sherd BI amphora (burnt) **Figs 35 and 36**	5th to 6th C
1	bodysherd B ware ? amphora with possible red *dipinti* on interior	5th to 6th C
1	rimsherd Sandy Lane style 1 'grass marked' ware. **Fig 13**	11th to 12th C
3	sherds Cornish Medieval Coarseware	13th to 14th C
2	sherds Cornish Post Medieval Coarseware Lostwithiel ware. Painted line decoration. **Fig 13**	15th to 16th C
4	sherds Cornish Post Medieval Coarseware	16th to 17th C
20	undiagnostic sherds Post-Medieval GRE	17th to 18th C
2	Post-Medieval Beauvais ware, **Fig 13**	17th to 18th C
1	sherd Post-Med Tin Glazed Earthenware, Delftware	17th to 18th C
6	sherds Modern White Glazed Stoneware	19th to 20th C
2	sherds Modern porcelain	19th to 20th C
1	complete Nottingham Saltglazed Stoneware medicine bottle	19th to 20th C
1	sherd Nottingham Saltglazed Stoneware	19th to 20th C
1	sherd black "Basaltz" ware	19th to 20th C
9	fragments of roofing ridge tile	14th to 19th C
7	clay pipe stem fragments	18th to 19th C
1	complete glass medicine bottle	19th to 20th C
1	fragment glass lemonade bottle	19th to 20th C
1	$^{2}/_{3}$ complete white glass bottle	19th to 20th C
14	fragments bottle glass	19th to 20th C
1	perforated slate - roofing slate ?	?
3	waste flint flakes	Prehistoric
1	granite saddle quern fragment	Prehistoric
1	human mandible fragment	?
23	animal bones (some butchered)	?
1	crab claw	?
1	fish jaw bone	?
2	fish vertebrae	?
20	fragments of lead scrap, some partially melted	?
4	fragments of cut lead sheeting	?
2	fragments of window lead	?
1	lead sounding weight	?
1	lead weight, oval shaped with triangular section	?
1	lead weight, conical in shape	?
3	small calibre pistol balls, freshly moulded, two bearing mould sprues and marks	17th to 18th C
1	small calibre pistol ball, flattened by impact	17th to 18th C
1	large calibre musket balls freshly moulded, bearing sprue and mould marks	17th to 18th C
6	large calibre musket balls, 5 flattened by impact	17th to 18th C
3	brass small calibre (.22) rifle cartridge cases	20th C

2	brass small calibre (.22) pistol cartridge cases	20th C
1	shotgun cartridge case	20th C
1	iron ratchet cog	19th to 20th C
1	silver pocket watch back, hall marks on interior	19th to 20th C
1	fragment, of a bell (Cu alloy), part of bell mouth **Fig 16**	19th to 20th C ?
1	plain button (Cu alloy)	19th to 20th C
1	gaiter / breeches buckle (Cu alloy)	18th to 19th C
1	button (Cu alloy), machined foliated decoration	19th to 20th C
1	drawer handle, ring shaped (Cu alloy)	19th to 20th C
1	hinge plate (Cu alloy)	19th to 20th C
1	square shaped (Cu alloy) washer	19th to 20th C
1	melted droplet (Cu alloy)	?
2	fragments (Cu alloy) plate, scrap ?	?
1	coin / token (Cu alloy) heavily corroded	?
1	penny	1946
1	2 pence piece	1971
1	strap end (Cu alloy) **Fig 16**	Medieval ?
1	book clasp (Cu alloy) **Fig 16**	Medieval ?

APPENDIX 10 ARTEFACTS FROM OTHER PARTS OF ST MICHAEL'S MOUNT AND CHAPEL ROCK

by Carl Thorpe

Comments by John Allan of the Royal Albert Memorial Museum, Exeter, are in square brackets, in italics, and prefixed with JA.

Cobbling at the north-western summit battery

A number of artefacts, 186 in total, were recovered by Simon Barnecutt during his work cobbling within the north-western summit battery in 1998. All the finds are unstratified being collected from the resultant spoil heap as the cobbling progressed. Pottery comprises the largest group within the assemblage although there were also stone artefacts, ceramics, iron, bone, glass, and clay pipes. The classification of pottery is that adopted for the sewer finds report (2.3).

The artefacts are being temporarily stored in the CAU offices, Kennall building, Old County Hall, Truro, Cornwall. The finds from each 9ft wide strip were bagged by Simon and are summarised by Carl in the following tables.

Context: First 9ft southern end.		**Provisional Date**
7	sherds Modern White Glazed Stoneware	19th to 20th C
2	Clay pipe stem fragments	18th to 19th C
2	fragments, burnt shillet	?
1	roofing slate fragment	?
1	animal bone	?

Context: Second 9ft southern end.		
8	sherds Modern White Glazed Stoneware	19th to 20th C
7	sherds Modern Yellow Glazed Stoneware	19th to 20th C
1	sherd Modern porcelain	19th to 20th C
2	sherds Nottingham Saltglazed Stoneware	19th to 20th C
1	Clay pipe stem fragment	18th to 19th C
4	animal bone fragments	?
4	fragments, burnt shillet	?
1	broken flint cobble	

Context: Third 9ft southern end.		
8	sherds Modern White Glazed Stoneware	19th to 20th C
1	handle sherd black 'Basaltz' ware	19th to 20th C
1	sherd Post-Medieval Saltglazed Stoneware (Frechen Ware)	17th to 18th C
1	undiagnostic sherd Post-Medieval GRE	17th to 18th C
1	fragment of roofing ridge tile	18th to 19th C
5	clay pipe stem fragments	18th to 19th C
1	fragment green bottle glass	19th to 20th C
6	animal bone fragments	?

Context: Fourth 9ft southern end		
22	sherds Modern White Glazed Stoneware	19th to 20th C
1	sherd Post-Medieval Yellow GRE (Bristol / Staffordshire Ware)	17th to 18th C
1	sherd Post-Medieval Saltglazed Stoneware (Bristol Ware)	18th to 19th C
1	foot of clay pipe stamped WG	18th C?
5	Clay pipe stem fragments	18th to 19th C
13	animal bone fragments	?

1	whelk shell	?

Context: Last 10ft from southern end

1	sherd Modern White Glazed Earthenware	18th to 19th
3	sherds Modern White Glazed Stoneware	19th to 20th C
2	undiagnostic sherds Post-Medieval GRE	17th to 18th C
1	complete clay pipe bowl	17th C
1	fragment of clay pipe bowl	17th to 18th C
9	animal bone fragments	?

Context: Corner 9ft away from southern end

1	rimsherd Cornish Late-Medieval Coarseware (Lostwithiel ware) **Fig 14, Cromwell's Passage**	15th to 16th C
2	sherds Cornish Late-Medieval Coarseware (Lostwithiel ware)	15th to 16th C
2	sherds Cornish Post-Medieval Coarseware (Lostwithiel ware)	16th to 17th C
2	undiagnostic sherds Post-Medieval GRE	17th to 18th C
7	sherds Modern White Glazed Stoneware	19th to 20th C
2	foot fragments clay pipe	18th to 19th C
4	Clay pipe stem fragments	18th to 19th C
6	animal bone fragments	?
1	flint cobble	?

Context: Summit. Silt to south of NW battery

13	Fragment of Late-Medieval roofing tile	15th to 16th C

Eastern cliff exposure

These artefacts were collected by Peter Herring and Cathy Parkes from the short stretch of exposed cliffs on the southern side of the Mount in 1992 (see Herring 1993a, site 91508). All came from a plough soil that could be equated with Context [1] of the sewer trench.

SMM92/1
[JA: North Devon gravel-tempered ware *post-1500]*

SMM92/3
[JA: North Devon gravel-tempered ware *16th or 17th C]*

SMM92 5+6
1 sherd Granitic Derived Fabric A — LBA/EIA
2 sherds Gabbro with added temper (Fabric D) — LBA/EIA

SMM92/13
1 sherd Gabbro with added temper (Fabric D) — LBA/EIA
[JA: Prehistoric]

SMM92/14
[JA: High medieval coarseware *13th or 14th C]*

SMM92/15
1 sherd Gabbro (Fabric C) **P11** — Roman
[JA: Glass; early post-medieval, pale-green, North European, vessel, heavily pitted and eroded.] *16th or 17th C*

SMM92/17
2 sherds Gabbro with added temper (Fabric D) — LBA/EIA
[JA: Prehistoric]

Garden Beds [GB 2]

Collected by Head Gardener Roy Powell during his work

2 sherds Cornish Medieval Coarseware (Bunnings Park / Stuffle Ware).	13th to 14th C
[JA: One is medieval Cornish coarseware	*1250 - 1500*
Other is medieval jug sherd.	*1250 - 1500]*
1 clay pipe stem fragment.	18th to 19th C
[JA:	*18th C]*
1 rim sherd Delft Ware, **Fig 14**	17th to 18th C
1 roofing tile fragment.	14th to 15th C
[JA: Ridge tile; Cornish.	*post-1300-18th C]*
1 floor tile fragment.	16th to 18th C
[JA: Floor or oven tile.	*Prob. Late med.]*

Garden Beds (West Terraces) [GWT]

Collected by Head Gardener Roy Powell during his work

1 roofing tile crest with incised Christmas Tree" decoration.	14th to 15th C
JA: 1 sherd of late-medieval ridge tile with hand moulded crest and fir tree incised decoration] **Fig 13**	*15th or 16th C*

Near Lower West Battery

Found by Cathy Parkes in 1992.

1	sherd Post-Medieval Saltglazed Stoneware (Frechen Ware)	17th to 18th C

Lowest steps, Eastern Terraces

Found by Cathy Parkes in 1992.

1	clay pipe bowl fragment decorated with 'Prince of Wales' feathers	19th C

Path uphill to SW of Civil War gateway

Collected by Peter Herring and Ann Reynolds in 1997.

16	Sherds Cornish Medieval Coarseware	13th to 14th C

SMC 92

1 sherd Gabbro (Fabric C)	Prehist/Roman

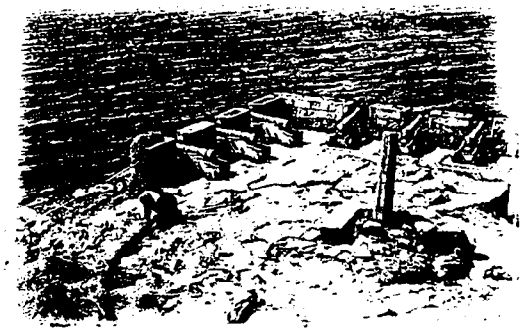
CR 92

From Chapel Rock, summit soil exposure, collected by Peter Herring in 1992.

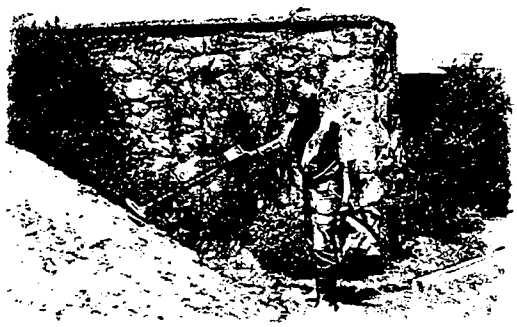
1 sherd Gabbro (Fabric C)	Prehist/Roman

Virtually everyone regards St Michael's Mount as a romantic semi-island whose exciting history was peopled with prehistoric tin traders, medieval monks and soldiers and, in more recent times, fishing families and lords and ladies. Until now the history has mainly been developed from written or pictorial sources. There has been surprisingly little independent archaeological research involving surveying the structures and earthworks which are scattered over the Mount's surface or investigating material contained beneath it in the soil.

Between 1995 and 1998 a series of projects undertaken by The National Trust and Lord St Levan allowed the Cornwall Archaeological Unit to inspect trenches cut for sewers, land drains and cobbling, and to prepare measured plans of some key complexes. This report details the numerous important discoveries and includes discussions on their implications for our understanding of the Mount's development.



We can now introduce Neolithic hunters, post-Roman traders, early medieval Christians, and Victorian landscape gardeners to the other well-established inhabitants of St Michael's Mount's past. It is also possible to put much more flesh on the bones of those Iron Age traders and medieval men and women. This report should stimulate further historical and archaeological research into one of Britain's very special places.



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COUNTY COUNCIL

EUROPEAN COMMUNITY
European Regional
Development Fund

The National Trust

St Aubyn (Lord St Levan)

ISBN 1-898166-49-8
9 791898 166497

Designed by Cornwall County Council, Technical Services
Produced by Cornwall County Council, Archaeological Unit,
Planning Directorate, County Hall, Truro TR1 3AY

St Michael's Mount: Archaeological Works, 1995-8